ROTTERDAM SCHOOL OF MANAGEMENT
ERASMUS UNIVERSITY

BUSINESS & THE SUSTAINABLE DEVELOPMENT GOALS

A FRAMEWORK FOR EFFECTIVE CORPORATE INVOLVEMENT

ROB VAN TULDER



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Business & The Sustainable Development Goals: A Framework for Effective Corporate Involvement

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RSM Series on Positive Change

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ACKNOWLEDGEMENTS

This short book presents a framework for making corporate strategies effective for sustainable development. This framework is a condensed result of a variety of interdisciplinary research and teaching projects, organised with colleagues in academia, practitioners at companies, civil society organisations and government, and with PhD and master students. Over the course of a considerable number of years these collaborations allowed me to develop a more integrated vision on the way corporations could effectively contribute to very complex societal problems: through new business models, cross-sector partnerships, thinking on inclusive development, linking macro challenges to micro approaches, positive change trajectories and all sorts of management techniques that are needed to (pro) actively take up complex societal challenges (rather than staying passive or shift responsibility to others).

The most important trigger for writing this book was the initiation and adoption of the Sustainable Development Goals as a leading agenda for research and teaching at Rotterdam School of Management, Erasmus University, helping to facilitate its new mission, ‘to be a force for positive change in the world’. I felt energised and personally responsible to share my knowledge and insights in a concise manner with students, staff and societal stakeholders. This short book is an effort to navigate student’s research and societal action towards higher levels of engagement in today’s ‘grand challenges’. It provides input for teaching, but also background material for the learning modules that are developed around each SDG by RSM. With this book I support RSM’s mission to ‘be a force for positive change in the world’ by introducing a concrete strategic framework that companies can apply in case they (also) want to take the SDGs seriously.

I would like to thank **Eva Rood** and her team – supported by the dean’s office and other major faculty stakeholders – who chased me to provide a solid foundation for the faculty’s efforts. Being interested in all the SDGs, however, made it impossible for me to present a quick fix to this challenge. Being one of the lead subscribers to the ‘SDG Charter’ I also felt the intellectual urge to legitimise my support of the SDGs as a ‘new paradigm’ – in particular because the SDGs are not necessarily considered by everyone as ‘progress’. This book takes their criticism very seriously (see Part I).

On the execution of this book, I am particularly indebted to **Eveline van Mil** who allowed me to take some of her thinking as frames for this book. She was also prepared to meticulously go through the draft texts of most of the manuscript. The thinking on and framing of wicked problems is based on her inputs. **Ronny Reshef** and a number of competent editors, in particular **Lesa Sawahata**, further helped me to make the text more readable and the referencing more adequate.

On the building blocks and insights, I am particularly indebted to my PhD student **Jan Anton van Zanten**, with whom I am working on a number of SDG projects with great energy and intellect. Since 2016, a growing number of my Master students have become interested in the SDGs, which has provided me with additional inputs and literature reviews on related topics.

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There is no product without audience; the way my faculty colleagues embraced the SDGs in teaching and research gave me the certainty that this book will have an audience. My direct colleagues **Maarten Wubben, Muel Kaptein, Marius van Dijke, Joep Cornelissen and Steve Kennedy** have been working on a new curriculum for the Leadership Sustainability and Governance bachelor course of which the SDGs and this short book are now an integral part. In the philosophy of the SDGs, this book is produced as a common pool resource and an open access product. It is my hope and expectation that this book will not only be used by students, but by everyone interested in making the joint ambition of the SDGs a reality.

Rob van Tulder

FOREWORD

HOW CAN BUSINESSES BE A FORCE FOR POSITIVE CHANGE?

Rotterdam School of Management, Erasmus University (RSM) launched a new mission statement in May 2017: *RSM is a force for positive change in the world*.

This mission statement is bold, and we are serious about it. We aspire to be a force for positive change in the world through our ground-breaking research, our world-class education of new generations of change agents, and our engagement with industry and society. We use the UN Sustainable Development Goals (SDGs) as a reference framework.

The SDGs, agreed by world leaders in 2015, set out a framework to classify the most urgent social, economic and environmental challenges facing the world. These SDGs are neutral, non-political and provide an internationally recognised point of reference for us to ensure that what we do – through our research, our education, and through our engagement with society – is relevant, meaningful, and has real societal impact.

Our RSM Series on Positive Change publications aim to inform managers and business students about trends that are critical for a sustainable future, and about opportunities for business to contribute to positive change. We present new frameworks that can be used to challenge corporates' current way of thinking and re-calibrate their strategies.

This publication acts as an introduction to the series. In it, Rob van Tulder, Professor of International Business at RSM, conducts a critical assessment of the SDGs. He argues that collaboration is essential to effectively address these grand societal challenges, and presents a framework for designing broader, pro-active, purpose-driven business models, as well as for identifying the 'tipping points' at which business (through the various functional areas of management) begins to create positive inclusive externalities.

Professor Van Tulder offers seven guiding principles for companies to grasp the 'how' of using the SDGs as a strong mechanism for guiding their strategic planning.

It is my hope that this publication will provide you with a solid understanding of the relevance of the SDG framework for business, and of the contribution that business, together with civil society and governmental organisations, can make to solve those wicked societal problems. It will inspire you to take on the challenge and engage in transformational partnerships that solve systemic problems.

The first publication in this series by RSM Executive Fellow Willem Ferwerda, 4 Returns, 3 Zones, 20 Years: A Holistic Framework for Ecological Restoration by People and Business for Next Generations deals with the critical importance of healthy ecosystems and the opportunities for business to restore degraded landscapes in partnerships, while taking into account four returns: of financial capital, social capital, natural capital, and return of inspiration.

In the second publication of the series, From Risk to Opportunity - A Framework for Sustainable Finance, Dirk Schoenmaker, Professor of Banking and Finance at RSM, explains how finance is a powerful force that can help to bring about positive change. He highlights a number of critical developments, insights and opportunities, and presents useful guidelines that will help to govern sustainable finance.

Enjoy the read – and please do share your thoughts, feedback and ideas with us via positivechange@rsm.nl



Steef van de Velde

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PART I WHY?

THE CREATION OF THE SDGS – A NEW PARADIGM FOR PROGRESS?

Business relevance:
The Sustainable Development Goals (SDGs) have been widely accepted by business, government and CSOs since their introduction by the UN on 25 September 2015. All 193 member countries of the UN General Assembly unanimously committed to achieving the 17 SDGs by 2030. The SDGs replaced the eight Millennium Development Goals (MDGs) of 2000. They were established following a massive, three-year global multistakeholder consultation in which hundreds of corporations, governments, civil society groups, knowledge institutes and other organisations participated.
While all seem to agree on 'why' these 17 Goals – and the 169 sub-targets that give them nuance and specificity – are of key importance, the comprehensive, complex and interconnected nature of the goals creates considerable difficulties for addressing 'who', 'what', and 'how' questions. The SDGs are indeed a novel way of addressing an increasingly volatile, uncertain, complex and ambiguous world through a number of components that – together – constitute a (disruptive) new model of progress: (i) inclusive goals based on positive change, (ii) defined as universal challenges, (iii) oriented to collective ambitions and (iv) based on joint investment of energy and finance (as opposed to subsidies or philanthropy).

The acceptance of the SDGs signals a badly needed 'paradigm shift' in the thinking around the conditions for sustainable development and the role(s) played by societal actors such as companies. A crucial tipping point is to shift not only paradigms of thinking, but also perceptions of these 17 grand and interconnected goals: from challenges that threaten every part of the status quo, to vibrant new opportunities to create sustainable value (and stability) for business, government, people and planet.

Questions for business schools:
- How can business schools enable effective adoption of the SDGs as a focus for organisations wishing to make 'positive change'?
- How can business schools develop KPIs or other tools, or adapt those referenced in this publication, to measure adoption and progress of business & cross-sector partnerships in focusing on the SDGs?
- How can business schools help business to fulfil the promise of the SDGs?
- Which businesses/organisations have already started off well – local and global examples?

1.1 INTRODUCTION: THE ENTRY OF A NEW FRAME FOR GRAND CHALLENGES

We are living in uncertain times. An often used acronym to characterise the kind of turbulence that society faces is VUCA. This acronym was introduced by the US Military College at the beginning of the 21st century to stand for the increased Volatility, Uncertainty, Complexity and Ambiguity that technological, political and economic processes are currently creating. The world is increasingly multilateral – witness the rapid economic development of China, the military aggression of Russia, the partial withdrawal from the global stage of the United States or the relative fragmentation and undecidedness of the European Union. The unpredictable movements in our VUCA world seriously hamper the way corporations, organisations and people are able to make decisions, plan ahead, manage risks and foster change. This situation gets even worse if they want to adopt a longer term perspective, as is required for most societal challenges.

A VUCA world creates challenges, but for those who can come to grips with its dynamics, opportunities as well. Business scholars address these issues as 'grand challenges' (George et al, 2017) and as strategic 'leadership paradoxes' (Bolden et al, 2016) that require collaborative and coordinated efforts. Dealing with rapidly amplifying complexity and uncertainty also calls for business model innovations, new forms of decision-making that can cope with the levels of complexity at hand and, ultimately, for quite different mindsets.

The challenges the world is facing are huge. Take for example the growing global population, one of ten key challenges that were identified by the World Economic Forum (WEF, 2009). This may seem a relatively easy-to-assess demographic factor with clear, foreseeable consequences. But is it? By the year 2050 the earth will probably have to feed 9.7 billion people. This implies implies that the demand for food will be 60% greater than today. If not dealt with effectively, malnutrition, hunger and conflict are likely to arise; if not dealt with responsibly, ecological degradation, biodiversity loss and natural resource depletion will be the result. To keep pace with the increasing population (of young people in particular) and decreasing jobs in existing industries, around 500 million new jobs will need to be created by 2020 – and even more in the consecutive decade. This requires investment in education and skills development, new industries, trade relations, financial and physical infrastructure. The hot spot of these developments will be Africa, in which the greatest increase in population (relative to other areas of the world) is expected over the next decades – from one billion to three billion people.

The internet has seriously changed the way we live, work, organise and govern society, thereby affecting or redefining values such as security, privacy, economic value, accountability, fairness and inclusivity. Yet the effects of the massive introduction of social media and instant and constant interconnectedness on (social) skills development, productivity and our mental, emotional and physical health are still largely unclear. Amidst these rapid developments, the gender gap in such crucial domains as access to health, education, earning potential and political power is only decreasing slowly, despite the recognition that gender equality makes perfect economic sense. It is calculated that at current rates, it will take another 118 years to close the economic gender gap entirely. These challenges, and many concurrently linked developments are highly inter-related, global in scale and complex in nature. Consequently, how to approach them effectively is open for debate. The above example is just one of the profoundly interrelated effects that global change processes trigger.

Enter the Sustainable Development Goals (SDGs):
On September 25 2015, the United Nation's Sustainable Development Goals (SDGs) were released as part of the 2030 Agenda for Sustainable Development. On that date, all 193 member countries of the United Nation General Assembly unanimously committed to achieving 17 ambitious global goals by 2030 (UN, 2015). These goals were established following a massive three-year, global multi-stakeholder consultation in which hundreds of big and small corporations, governments, civil society groups, knowledge institutes and other institutions participated. In fact, the SDGs represent the 'largest public consultancy' in the history of the United Nations. The United Nations' survey 'MyWorld2015' asked 9.7 million citizens what they would like to have included in the new goals that were to succeed the preceding eight Millennium Development Goals established in the year 2000. The 17 goals and 169 sub-targets resulting from this global consultation process range from eradicating poverty and hunger, improving access to health and education, ensuring human rights, to protecting ecosystems and biodiversity (Figure 1).

The SDGs are aimed at advancing a diverse range of crucial sustainable development themes simultaneously, with universal coverage and through an inclusive approach. They have encountered serious criticism for either being too ambitious and too complex (Copenhagen consensus, 2015) or not being ambitious enough, especially with regard to the modalities of their execution (Pogge and Sengupta, 2015) and the omission of addressing crucial financial considerations like who is going to pay? Notwithstanding this very relevant and critical discourse, the SDGs are generally considered to constitute the leading frame of the global development agenda until 2030 (Kolk, 2016; Pattberg & Widerberg, 2016; Sachs, 2015). Under which conditions will they also be the leading agenda for corporations?

FIG. 1.1 *The Sustainable Development Goals*



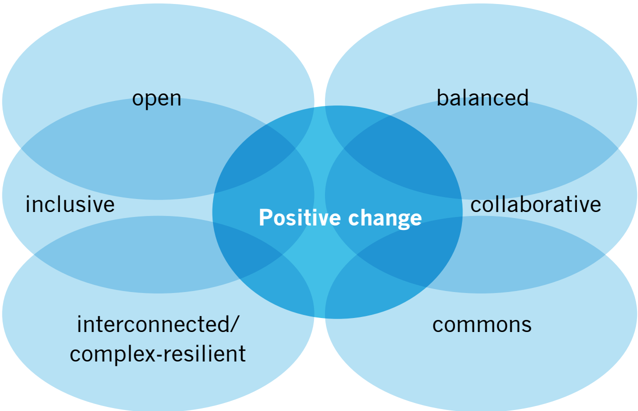
This chapter explains why the introduction of the Sustainable Development Goals as a global agenda is not only interesting and challenging, but also signals a badly needed 'paradigm shift' in the thinking around the conditions for sustainable development and the role(s) played by societal actors such as companies. The SDGs are a novel way of addressing an increasingly VUCA world through a number of components

that – together – constitute a new paradigm of progress based on the following components that will be explained in section 1.2: (i) inclusive goals, based on positive change, (ii) in open and balanced societies, (iii) defined as universal (common) challenges, (iv) taking the complexity of the joint challenge into account, (v) oriented to collective ambitions and action for which cooperation is needed and (vi) based on joint investment of energy and finance rather than subsidies or philanthropy. This chapter clarifies why these components can be considered as a new paradigm for governments, citizens and corporations alike (Section 1.2), and why the SDGs can be considered as the dawn of a new era (Section 1.3). But the paradigm status of the SDGs as a leading reference framework also depends on its reception in society. We take a closer look (in Section 1.4) at support and critique for the SDGs. The effectiveness of the SDG-agenda is as much influenced by dealing with these criticisms as by successfully addressing the identified challenges through embracing the opportunities they can create (Section 1.5).

1.2 THE SUSTAINABLE DEVELOPMENT CHALLENGE: PRECONDITIONS FOR A NEW PARADIGM

Since the start of the 21st century, the thinking on sustainable growth and development has undergone substantive changes: at the global level, at the national level and at the sectoral level.

FIG. 1.2 *Components of a new paradigm in a VUCA world*



Open Societies

Firstly, it has been successfully argued that ‘open societies’ are important for sustainable development. But because of the nature of a number of parallel systemic crises that put large parts of the economic and political system under pressure, the initial optimism about ‘globalisation’ turned into disillusionment. There was the realisation that the way globalisation was being organised, also contained growing risks and negative effects. This recognition developed from a worry about the millennium bug, via unequal trade deals, ecological crises, refugee crises, civil wars over scarce resources, the disgruntled responses to the ‘Arab Spring’ and the related menace of global terrorism. But in particular the global financial crisis that started in 2007 in the United States revealed

the sizable risks related to the set-up of the global financial system. All these crises show a pattern of systemic failure that requires a new – more equitable and smarter – set-up of international relations and institutions, in particular related to the economic and financial interaction between countries.

The alternative – retreat behind national borders – that is considered by a growing number of governments is understandable, but has historically proven to be risky as well. Scientific consensus amongst institutional economists is moving in a direction that accepts there are many ways to deal with the challenges of systemic failure, although the prevalence of the 'Western' type of policy (privatisation, open borders and neo-liberalism) contains considerable risks and puts the burden of development onto weaker countries and weaker actors in society. Full free trade and more globalisation is not the answer to the various global crises either. When not properly addressed, the political consequences of such a transition will create many victims, and a political backlash that supports populist and protectionist movements.

A more subtle mix of policy measures is needed. Trade economist Dani Rodrik (2007) calls this the inescapable 'trilemma' of the world economy. In short, this implies that democracy, national sovereignty and global economic integration are mutually incompatible. The global system can combine any two of the three, but can never have all three simultaneously and in full. This is also one of the reasons why, for instance, a less democratic system like that of China which puts a lot of emphasis on national political and economic sovereignty, seems to profit more from global economic integration than the United States or Europe, where they try to focus on all three dimensions at the same time.

The approach on a global scale currently leans towards reregulation rather than deregulation, and probably also towards less globalisation. In Rodrik's trilemma many trade-offs exist: "If we want more globalisation, we must either give up some democracy or some national sovereignty." Or the other way round: if we want to keep national sovereignty, globalisation has its limits. So, mixed and more balanced models will not only appear, but are probably the best way forward to reap the benefits of international interdependence (globalisation) while making sure that negative effects are not taking over.

Inclusive societies

Secondly, and closely related to the above realisation, evidence is mounting that sustainable development can only be achieved if countries adopt inclusive growth policies and development strategies. A study by the International Monetary Fund (Dabla-Norris et al, 2015) of 159 economies for the 1980-2012 period, found three trends: (1) growing income inequality had a negative effect on economic growth; (2) increasing the income share of the poor and the middle class has actually increased economic growth; and (3) a rising income share of the top 20 percent resulted in lower growth. In other words: when the rich get richer, the poor do not automatically profit, as wealth does not trickle down.

Inclusiveness and reducing inequality are a necessary precondition for sustained economic growth. Influential think tanks like the World Economic Forum (Samans et al, 2015), the group of G20 countries and Regional Development Banks (ADB, 2012) also advocate for 'inclusive' (economic) growth. Inclusive growth is a concept that advances

equitable opportunities for economic participants and benefits every part of society. This definition implies that there is a direct link between the macro and micro determinants of economic growth. According to the World Bank (2008) "the micro dimension captures the importance of structural transformation for economic diversification and competition". In this regard, the definition of inclusive growth differs from so-called 'pro-poor' growth policies as the pro-poor approach is mainly interested in the welfare of the poor, whereas inclusive growth is concerned with opportunities for the majority of the labour force, poor and middle-class alike (OECD, 2014).

Balanced societies

Thirdly, inclusive and sustainable growth is increasingly based on the idea of 'balanced' development. In this basic idea, introduced by management guru Henry Mintzberg (2015), three institutional spheres of society – state, civil society and markets – complement each other and take (joint) responsibility for inclusiveness and sustainability (Van Tulder and Pfisterer, 2014). Balanced societies require 'concerted leadership' on the part of both public and private sectors (Nelson et al, 2009). This includes for instance the role of cross-sector partnerships between civil society organisations (CSO) and the corporate sector. As institutions have a strong impact on growth (Rodrik et al, 2004), the idea of a balanced society reiterates the importance of so-called 'inclusive institutions' in support of inclusive growth (Acemoglu, Gallego and Robinson, 2014). Thinking about the institutional set up of societies is the realm of welfare economics and public good theory.

Every problem of sustainable and balanced development has at least three value dimensions that define its nature as well as possible directions of solutions:

- **Public value:** to what extent can the problem be classified as an insufficient implementation of the primary roles of governments, i.e. regulation and public goods provision on a non-discriminatory basis?
- **Private value:** can the problem be solved by market-based approaches, in which companies compete with each other and provide private goods on an exclusive profit-oriented basis?
- **Social value:** to what extent can the problem be efficiently addressed by citizens themselves without interference of governments and/or firms? Social goods provision is often provided on a partly exclusive but non-rival basis in which the group profits from sharing resources, largely on the basis of trusted relationships.

On the basis of these values, a balanced society delivers public, private and social goods in sufficient propositions. It profits from the resilience of various mechanisms that operate in a complementary way. One can distinguish in that between the degree of rivalry and the degree of exclusion. Goods and values are called 'rival' in case the consumption or usage of it prevents simultaneous consumption or usage by others. This is the case with most consumption goods: the consumption of an apple prevents another person profiting from it. Because of their rival nature, consumption goods are easier to produce in an efficient and profitable manner. Non-rival goods do not prevent others from simultaneous consumption. If this involves an unlimited number of people, we are talking about 'public goods'. Economist Paul Samuelson (1954) was the first to draw attention to the needed role of governments (and regulation) in the effective production of public goods, which are non-rival and non-excludable – i.e. the consumption by an individual of those goods does not lead to a reduction in any other individual's consumption. This can be positive, but also negative: pollution for instance

does not discriminate against populations, so it creates 'public bads' for all. In case the number of people needs to be limited in order to enable a good or value to be delivered, we talk about 'club goods' or 'social goods'. Table 1.1 provides characteristics as well as examples of these various goods and values. Well-functioning societies have a minimum level of each good provided within their territory.

TABLE 1.1 *Four components of a balanced society: insight from public good theory*

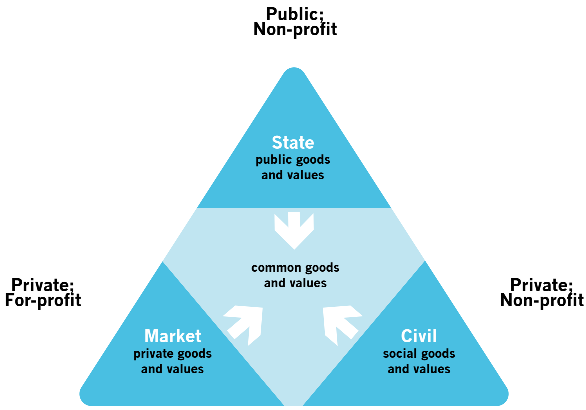
		Degree of exclusiveness	
		Excludable	**Non-excludable**
Degree of rivalry	**Rivalrous**	**Private goods:** food, clothing, cars, parking spaces **Private values:** For-profit; competition; reward; entitlement; innovation; scaling	**Common goods (common pool resources):** Fish stock, timber, coal, water, **Common values:** Common heritage; well-being; responsibility; collaboration; territorial integrity
	Non-rivalrous	**Club/social goods:** Cinemas, private parks, satellite television, ground **Club values:** Non-profit; belonging; trust; family, tribe; group interests; mutual support; community	**Public goods:** Television, air, national defense **Public values:** Non-profit; justice; safety; security; non-discrimination; public health; public interest

Source: Based on Crones, Sandler (1986); Van Tulder with Van der Zwart (2006)

In balanced societies, three values are generally well represented by three societal spheres organised around governments, companies and communities or civil societies. Each of these societal sectors has developed 'value propositions' that potentially make it an important part of society, even a condition for progress. Companies, for instance, can use the profits they accumulate to innovate and scale products and services that are needed by people. But ill-functioning sectors have also contributed to problems (Part II will develop this argument further). Figure 1.3 portrays the three sectors as a triangle, each with a clear and complementary 'logic'.

Balanced development does not imply a 'one size fits all' approach. Societies have different starting positions and are embedded differently in international relations. Sustainable development is built on an intricate combination of various coordination and control mechanisms: market-based, network-based and hierarchy-based (van Tulder and Pfisterer, 2014). 'Rival', 'divergent' or 'varieties' of capitalism (Whitley, 1999) exist that, in principle, can all have a positive impact on national growth and competitiveness (Witt and Jackson, 2016). Various configurations of societies are thus possible, in which state and society (civil and corporate) interact, balance each other's powers and thereby reinforce each other (Acemoglu and Robinson, 2017).

FIG. 1.3 *Societal Triangulation – how three sectors complement each other*



Sufficient Common Goods provision

Arguably the biggest challenge for balanced societies lies in the societal middle: how to supply and create sufficient 'common pool' resources and values? Common pool resources typically represent natural resource systems – such as forests, water or fishing grounds – from which it is difficult to exclude potential beneficiaries. In the literature, common pool problems are also referred to as 'tragedy of the commons', a term made popular in 1968 by American biologist Garrett Hardin to show that individual users that act independently and in their self-interests can behave contrary to the social good, by depleting or spoiling that resource through their rivalrous action. A common pasture that is used by herders in a rivalrous manner can lead to overgrazing as each individual herder receives full benefit of increased use, whereas the costs are spread among all users. The tragic result is the ruin of the common pasture, which in the end will make all herders suffer. If water gets depleted in a water-scarce region – for instance because of exploitation by one major rose-growing company, or by citizens that use it to water their green lawn – everybody will suffer. In case governments are not able or willing to regulate negative externalities – such as air, water, soil, thermal and radioactive pollution or biodiversity loss – that result from rivalrous and irresponsible use of common resources, local, national or even global society will suffer.

Dealing with common pool problems requires the involvement and positive action of all three societal actors. This is not easy to achieve or organise. Political economist and Nobel Prize winner Elinor Ostrom (1990) made a key contribution in this area. She looked at these issues in particular from the community perspective. Ostrom identified eight 'design principles' of stable local common pool resource management, of which the first principle was to clearly define the content of the common pool resource and effective exclusion of external unentitled parties. Inclusion and exclusion represent two sides of the same societal model.

There are no simple solutions to 'tragedy of the commons' problems. For more systemic common pool problems that geographically go beyond the direct influence of local communities and include, for instance, the reach and potential of international corporations, Ostrom's approach has been further developed to include higher degrees of complexity and systems thinking. This is the realm of the 'global commons'.

Dealing with the institutional void and complexity

The societal centre of the triangle with its related common pool problems, is also known as the 'institutional void'. In many developing countries, as well as between countries at the international level, formal institutions do not exist or are weakly enforced (Erken et al, 2016; Witt & Redding, 2013). Emerging economies are typically characterised by institutional voids (Hoskisson et al., 2000; Bruton et al, 2010), as markets and economic growth in these economies tend to advance faster than social and institutional structures. Without appropriate institutional capacity and governance arrangements in place, over-exploitation of natural resources and other types of negative externalities are prone to emerge. Institutional voids thus mirror the absence of 'societal checks and balances', and the lack of 'inclusive institutions' that can support companies and communities to live up to their full potential of contributing to inclusiveness (Khanna and Palepu, 2010) and the common good.

The void can only be filled by concerted actions of each of the societal sectors, in which new arrangements are created to develop the common goods that are needed for the whole society to thrive (van Tulder with Van der Zwart, 2006). Successful companies can reshape the institutional void into an 'opportunity' space (Mair & Marti, 2009).

Leading authors thereby emphasise the importance of a 'new social contract' for the creation of a common good at the local, the national and the global level (Sachs, 2015; Reich, 2018). When faced with the present approach of economists to contemporary grand challenges, leading economic thinker and Nobel Prize winner Jean Tirole (2017) asks himself "whatever happened to the common good in economic thinking?" He offers a strongly-worded warning about the dominance of one sector in society (markets) and the related "disintegration of the social contract and the loss of human dignity, the decline of politics and public service and the environmental unsustainability of the present economic model" (ibid: 1). A (new) social contract would have to be based on the involvement of multiple stakeholders and be inspired by the complexity of common pool problems, not be simplified into either/or – public or private, profit or non-profit – solutions.

It is increasingly recognised that understanding societal complexity lies at the core of effective sustainable development. Leading advisor to the United Nations and Earth Institute Director Jeffrey Sachs, for instance, argues in favour of understanding (societal) complexity as follows: "unless we combine economic growth with social inclusion and environmental sustainability, the economic gains are likely to be short-lived, as they will be followed by social instability and a rising frequency of environmental catastrophes," (Sachs, 2015: 27). Hence, sustainable development can only be addressed in a collaborative manner through the involvement of various stakeholders from all three societal spheres: state (public/non-profit), market (private/for profit) and civil society (public/non-profit). The politics, processes and dynamics that come with that, add an additional layer of complexity to the adequate implementation of sustainable development ambitions.

The importance of positive change and collaborative solutions

Institutional voids cannot be addressed through rivalry; they call for collective action. There is increasing and widespread acknowledgement that collaboration between societal spheres is crucial, if not a *sine qua non*. None of the traditional sectors have been able to adequately, unilaterally address the complexities and interrelatedness of the sustainability challenges at hand. Firms suffer from 'market failure', governments from 'governance failure' and civil society organisations are susceptible to 'civic failure' (Kolk et al, 2008). Complexity and systems theory literature therefore stress the importance of multi-stakeholder decision-making processes (Maani, 2007) and collaborative joint action of all relevant stakeholders. This finding is further supported by the existence of two powerful effects that are also at play in the institutional void, emanating from human psychology and behaviour: On the one hand the so-called 'bystander effect' and the problem of 'choice paralysis'; on the other hand, the limited value of negative frames to trigger effective action.

The bystander effect explains a comparable mechanism as the 'tragedy of the commons', but then considered from a social-psychological point of view (Hudson and Bruckman, 2004). Individuals are less likely to offer help – for instance to a person drowning – when other people are present. They become inactive bystanders, even when they are perfectly capable of helping. This mechanism also applies to societal problems. The more 'bystanders' who are present in the face of a problem, the less likely they are to take responsibility and come into action. Bystander effects are related to distribution of responsibilities in case of larger groups and rival interests. In the face of more complex problems, the bystander effect gets reinforced by another social psychological effect: 'choice paralysis' (Schwartz, 2004). The more complex a problem is, the greater the number of bystanders becomes, and the more people tend to become undecided. Social psychological and behavioural economics research by leading thinkers, including Nobel Laureates like Richard Thaler (2016) and Daniel Kahneman (2012), suggests that the very nature and complexity of grand societal challenges tend to feed into negative and reactive attitudes. Choice paralysis implies that people and organisations, when confronted with complex problems, tend to get stuck in negative sentiments, doubt, denial and passivity. They do not act or they look the other way – even in the face of demise.

The effects of choice paralysis become particularly wicked in the face of global systemic crises like climate change, famine or rising income inequality. Presenting these phenomena as a 'disaster' or a doom-scenario often has limited effect. It feeds into paralysis and denial, even when the overwhelming evidence points at gloom and doom. Psychologist and economist Per Espen Stoknes (2017) applied these insights to the issue of global warming and climate change and concludes that these issues suffer from '*apocalypse fatigue*'. The negative frame of the discourse around flooding coastlines, destructive storms and extinction of species, triggers evasive reactions even with well-intentioned people. The problem is probably widespread, as 80% of news concerning grand societal challenges is packaged in negative frames.

The best approach, according to Espen Stoknes, contains three key elements:

- 1. Reframe the challenge;
- 2. Speak about climate as a health issue concerning ourselves and our families (meaning: not as an abstract theme; make it about safety and insurance, in terms of scenarios, in case something goes wrong); and
- 3. Talk about opportunities for smarter approaches, rather than describing the issue in terms of fear and guilt.

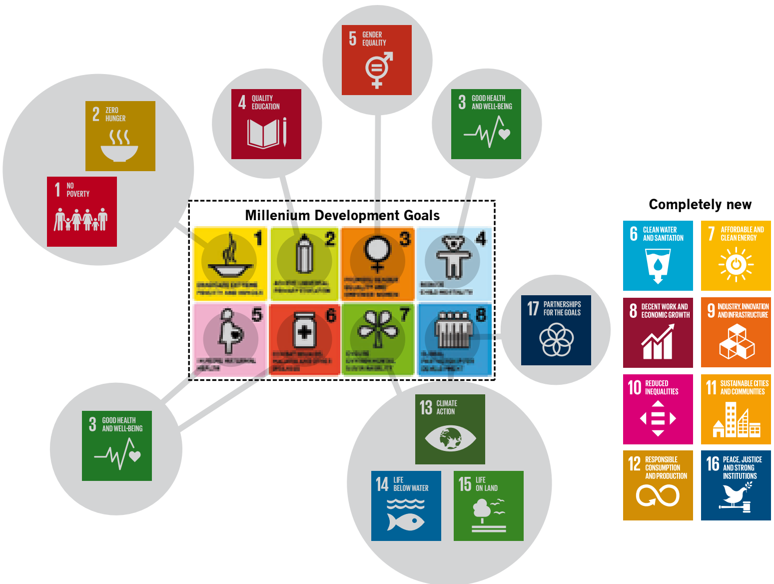
These frames create a sense of 'collective efficacy' and 'capability to do something about the issue'. Consequently, reframing breaks through the bystander effect, choice paralysis and/or apocalypse fatigue. International think-tanks like the World Economic Forum have also begun to propagate the approach that addressing global challenges requires cooperation from the public and private sector, based on positive rather than negative frames. This approach is a challenge in itself, as searching for a collective vision, positive change trajectories and collective action is far from a simple activity.

1.3 THE CREATION OF A NEW PARADIGM: FROM MDGS TO SDGS

All these insights have strongly influenced the thinking on how to organise a global agenda on sustainable development. The adoption of the Sustainable Development Goals in 2015 followed the finalisation of the Millennium Development Goals (MDGs, Figure 1.4). These were initiated in the year 2000 with considerably less ambitious aims, focusing on eight priorities such as child survival, basic education, promoting women's rights and halving world poverty and hunger by the year 2015. These goals were consequently criticised for not being ambitious enough to be effective agents for progress; for lacking solid analytical reasons that these particular objectives were chosen and others left out (Deneulin & Shahani, 2009); or for being 'goals without means' (Van Tulder 2010). The MDGs were relatively vague, without precise indicators for within-country issues like income disparities (Kabeer, 2010), while excluding important dimensions of sustainable development such as environmental sustainability related to consumption and production flows. Most of the MDGs were donor-driven, which implies that the goals only related to government policies and had a strong Southern bias, based on the illusion that sustainability issues are primarily located in so-called 'developing' countries. Societal stakeholders were not included in the consultation process. Moreover, the MDGs adopted a simplified concept of development as 'meeting basic needs', stripped of the challenges of inclusion and sustainable growth and development. Neither did the MDGs mention the need to reform institutions.

Critical observers of the MDG experience warned that the "negotiations around the post-2015 development agenda should go beyond just re-writing goals and targets that adhere to 'sustaining' the same old economic and social models" (Moore, 2015: 801), and should not shy away from including politically sensitive issues in the global agenda – issues such as inequality and income differences or gender equality. These issues had previously been explicitly excluded by governments, in return for their support of the MDGs.

FIG. 1.4 *Millennium Development Goals and Sustainable Development Goals compared*



In the end, the final score on the MDGs remained ambiguous. For some the glass was half full, for others the glass remained half empty. For instance, MDG 1 – 'halving poverty' – was reached by 2015, with more than 1 billion out of 1,9 billion people lifted out of extreme poverty (i.e. living on less than $1.25 a day) since 1990. Yet this was primarily attributable to Chinese and Indian efforts; the rate of poverty in sub-Saharan Africa did not change much and in other regions it even increased. By 2015, more than 40 percent of the sub-Saharan population continued to live in extreme poverty. The goals related to access to improved sanitation, maternal mortality ratios, or prevalence of undernourishment as percentage of populations were particularly off-target. In the final report on the achievements of the MDG effort (UN, 2015), then-Secretary General Ban-Ki-Moon noted that the MDGs had

> *"...helped to lift more than one billion people out of extreme poverty, to make inroads against hunger, to enable more girls to attend school than ever before and to protect our planet. They generated new and innovative partnerships, galvanised public opinion and showed the immense value of setting ambitious goals. [..] But I am keenly aware that inequalities persist and that progress has been uneven. The world's poor remain overwhelmingly concentrated in some parts of the world. [...] Too many women continue to die during pregnancy or from childbirth-related complications. Progress tends to bypass women and those who are lowest on the economic ladder or are disadvantaged because of their age, disability or ethnicity. Disparities between rural and urban areas remain pronounced. [...] Further progress will require an unswerving political will, and collective, long-term effort. We need to tackle root causes and do more to integrate the economic, social and environmental dimensions of sustainable development."*

Institutional ownership

The mixed record of the MDGs can be partly explained by limited consideration to the growing insights on crucial preconditions for sustainable development as discussed in Section 1.2. The major limitation of the MDGs by 2015 was “the lack of political will to implement due to the lack of ownership of the MDGs by the most affected constituencies" (International Planning Committee, 2015). So, even before the goals were properly evaluated, the UN proposed to set new goals for the 2015-2030 period. These subsequent goals, the SDGs, actually mirror a number of fundamental changes in the thinking around sustainable development: from a traditional development assistance rationale to universal goals; from limited in scope and reach to more comprehensive; from a top-down process to a multi-stakeholder bottom-up process in which quantitative indicators are complemented by qualitative indicators – even when this implies that not all of these indicators can be measured yet; and from a focus on development aid to a much broader set of financial sources.

The number of goals consequently more than doubled (from eight to 17 goals). Essential complexity was added with the universal addition of 169 sub-targets, not only to ‘developing’ but also to ‘developed’ countries. The goals encompass more diverse global issues, such as supply chains, urbanisation, inequality, innovation and infrastructure, migration and the elderly, with the ambition to cover the complexity of interrelations that shape the sustainable whole. Further, the SDGs were created on a multi-stakeholder basis, with contributions from a great variety of people and organisations. The 17 SDGs can therefore be considered the outcome of an inclusive process in which many people and organisations added their vision and priorities. The 17 SDGs can therefore be considered the outcome of an inclusive process in which many people and organisations added their vision and priorities. The SDGs also deal more explicitly with politically-sensitive issues, such as reducing inequality (Goal 10) which addresses income differences within and between countries, and responsible consumption (Goal 12) which draws into question the very economic model that wealthy developed countries have followed for years (cf. Fukuda-Parr, 2016).

Interrelated ambitions based on pragmatic reasoning

The result of the global agenda-setting process process has been the creation of 17 interrelated goals, linked to relatively clear problem statements. Table 1.2 summarises the ultimate goal of each SDG, as well as some of the stated reasons that explain why addressing the goal is deemed vital in creating sufficient common goods and, ultimately, the conditions for sustainable development. Hardly any of these conditions are ‘moral’. Rather, they are pragmatic and based on insights gained over the past decades. There is a consequential and a causal side to each reason. *Not* addressing the issue has major implications for everyone in the system, while the causes of the issue are also created by the way the system is organised. So causes, (non)actions and consequences are strongly related.

Take for instance the reasons why ending hunger and reducing malnutrition are considered critical: *Not* adequately addressing the basic need for sufficient food not only creates unhealthy populations, but also viciously affects education, equality and ultimately economic and societal development. The ‘why’ question hence represents in many respects economic, political and social ‘no-brainers’ – but with strong reference to the systemic nature of these challenges and the impact of their consequences. The repeated plea for ‘resilience’, ‘sustainability’ and ‘access for all’ actually represents a

very pragmatic assessment of what happens if the world underutilises the capacities of its citizens, companies and other societal stakeholders. This particular outcome of the multiple-stakeholder process in 17 relatively universal goals is thus easy to grasp from a negotiation point of view: within a heavily contested (VUCA) world, defining common goals with global reach can only be based on pragmatic and joint decision-making. Major differences between political and economic systems are bound to appear in the implementation phase (the 'how' and 'who' questions, which will be discussed in Parts II and III).

TABLE 1.2 *Why are the 17 SDGs important for Sustainable Development?*

1 NO POVERTY **End poverty in all its forms everywhere**	• Poverty involves lack of income and resources, including limited opportunities and capabilities. • Nearly half of the world's population lives in poverty, with >1 billion people living at or below $1.25 a day. • Poverty negatively impacts economies, social cohesion, deepens political and social tensions, may drive instability and conflict. • Main causes: unemployment, social exclusion, vulnerability to disasters and diseases.
2 ZERO HUNGER **End hunger, achieve food security and improved nutrition, promote sustainable agriculture**	• It is time to rethink how we grow, share and consume our food (global food and agriculture system). • Hunger is the main cause of death with more than 800 million people suffering worldwide. • Hunger negatively impacts health, economies, education, equality and social development. • Main causes of hunger: poor agricultural practices, food wastage, wars. • Obesity affects more than 1 billion people. • Challenge to feed an additional 2 billion people expected by 2050.
3 GOOD HEALTH AND WELL-BEING **Ensure healthy lives and promote well-being for all at all ages**	• Each year, more than 6 million children die before age 5; only 50% of women in developing countries have access to adequate health care. • Without universal health care coverage, health care costs will remain a main cause of poverty. • Main causes: lack of access to medicine and reproductive health care, undernourishment, conflict, fear and discrimination contributing to epidemics (HIV/AIDS).



Ensure inclusive and quality education for all and promote lifelong learning

- 103 million youth worldwide lack basic literacy skills.
- Education reduces inequality, intolerance and conflict, and allows for healthier, more sustainable lives and better jobs.
- Education is a key goal to achieve other SDGs, such as combatting climate change and responsible production and consumption.



Achieve gender equality and empower all women and girls

- Women and girls constitute 50% of the world's population and hence potential. Gender inequality obstructs this potential.
- Globally, women earn 24% less than men, and may have less access to healthcare and education.
- 35% of women have experienced physical and/or sexual intimate partner violence or non-partner sexual violence.
- For every dollar spent on programmes that improve education of girls and increase age of marriage, the return can be $5.



Ensure access to water and sanitation for all

- Clean water, sanitation and hygiene are a human right.
- 1.8 billion use fecally contaminated water, 2.4 billion lack access to sanitation, water scarcity affects 40% of people worldwide.
- This results in almost 2 million deaths per year (mostly children) due to diarrheal diseases. Food, energy production and economic growth are also adversely affected.



Ensure access to affordable, reliable, sustainable and modern energy for all

- Human and economic development requires energy.
- Fossil fuels contribute massively to global warming.
- 20% of people worldwide lack access to electricity.
- Clean energy would save 4+ million people each year from death from indoor air pollution; children can do homework at night, clinics can store vaccines.

8 DECENT WORK AND ECONOMIC GROWTH

Promote inclusive and sustainable economic growth, employment and decent work for all

- In 2012, 200+ million people were unemployed.
- 2.2 billion people living on less than $2 per day need well-paid jobs.
- Decent, productive work for all promotes peace, harmony, fair globalisation, and gender equality.
- Result: fair incomes, job security, social protection of families, higher social integration and personal development.
- A continued lack of decent work opportunities, insufficient investments and under-consumption leads to an erosion of the basic social contract underlying democratic societies: that all must share in progress.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Build resilient infrastructure, promote sustainable industrialisation and foster innovation

- Economic growth, social development and climate action require infrastructure, sustainable industrial development and technological progress.
- 1+ billion people have no access to reliable phone services;
- Sustainable industry improves living standards and benefits the environment; every job in manufacturing creates 2.2 jobs in other sectors.

10 REDUCED INEQUALITIES

Reduce inequality within and among countries

- Unequal distribution of income negatively affects economic growth.
- Inequality based on income, gender, age, disability, sexual orientation, race, class, ethnicity, religion and opportunity persists.
- In various developing countries income inequality is larger now than it was in 1990.
- Growing consensus that economic growth is not sufficient to reduce poverty if it is not inclusive and does not involve the three dimensions of sustainable development – economic, social and environmental.
- Result: negative impact on poverty, social and economic development, people's self-fulfillment and self-worth. This breeds crime, disease, environmental degradation.

11 SUSTAINABLE CITIES AND COMMUNITIES

Make cities inclusive, safe, resilient and sustainable

- In the near future, the majority of humanity will live in cities.
- Safe, inclusive, resilient, sustainable cities are key to solving many of today's problems.
- 828 million people live in slums, and this number is growing.
- Globally, cities occupy 3% of land, but emit 60-80% of greenhouse gases and use 75% of energy.
- Urban planning can foster shared prosperity and social stability without harming the environment.
- The size and impact of urban poverty has surpassed that of rural poverty.



Ensure sustainable consumption and production patterns

- With a predicted 9.7 billion people in 2050, sustaining our current life style will require three Earths.
- One third of all food produced is wasted; water is polluted faster than nature can purify it.
- Waste that is dumped rather than recycled contaminates soil and groundwater, and may spontaneously combust.
- Not reducing our ecological footprint will cause irreparable environmental damage.



Take urgent action to combat climate change and its impact

- Average global temperature increased by 0.85 °C from 1885 to 2012; without action, the increase this century will be > 3°C.
- Every 1°C rise in temperature reduces grain yields by 5%; sea levels have risen 19 cm from 1901 to 2012.
- Severe weather will impact all, and is already intensifying food and water scarcity; natural disasters are more likely to occur.
- Climate change is disrupting national economies and affecting lives, costing people, communities and countries dearly today and even more tomorrow.
- Climate change is a global challenge that does not respect national borders.



Conserve and sustainably use the oceans, seas and marine resources

- Seas ultimately regulate our water, weather, climate, coastlines, oxygen and much of our food.
- More than 3 billion people depend on the oceans as their primary source of protein.
- Oceans are threatened by marine and nutrient pollution (‘plastic soup’), resource depletion and climate change, all caused primarily by human actions.
- Adverse effects on marine ecosystems and biodiversity will create global socio-economic problems.
- Throughout history, oceans and seas have been vital conduits for trade and transportation.



Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss

- Forests cover 30 percent of the Earth’s surface and in addition to providing food security and shelter, forests are key to combatting climate change, protecting biodiversity and the homes of the indigenous population.
- Agriculture requires arable land; forests mitigate climate change, and are home to > 80% of terrestrial species.
- 52% of agricultural land is affected by soil degradation; every year, a forest area the size of Greece is lost.
- Of all 8300 known animal breeds, 8% are extinct and 22% at risk of extinction.
- For their livelihood, 1.6 billion people depend on forests; land degradation has affected 1.5 billion people as of 2008.



Promote just, peaceful and inclusive societies

- People need to feel free, safe, and included in their everyday lives, necessitating just, accountable, effective institutions.
- Developing countries lose $1.26 trillion a year to corruption, bribery, theft and tax evasion (>1.5% of the world's GDP).
- The judiciary and police are among the institutions most affected by corruption.
- Institutions are essential to the SDGs to deliver quality education, healthcare, just economic policies and protect the environment.



Revitalise the global partnership for sustainable development

- Successfully implementing the Sustainable Development agenda by 2030 requires integrated partnerships at all levels.
- Business, government and civil society need to cooperate based on shared values, principles, and vision.
- Partnerships are necessary at the local, regional, national and global level, including developed and developing countries.

Sources: http://www.un.org/sustainabledevelopment/wp-content/uploads/2016/08/1; UN, 2015

The nexus challenge

The SDGs present 17 areas of closely connected challenges. The extent to which each SDG can be effectively addressed separately, critically depends on the extent to which companies, governments and other societal stakeholders are able to understand, manage and make use of the interrelations between that and the other SDGs. Success in achieving results in one problem area is thus conditioned by actions, policies and progression in other areas. This phenomenon is also known as the 'nexus challenge'.

This concept refers to an integrated approach to policy- and decision-making that focuses not merely on individual components, but which takes the interrelatedness and interdependencies of the entire system (or relevant parts of it) into consideration so as to reduce trade-offs and create and leverage synergies. To illustrate: the ambition for inclusive growth is directly related to SDGs 1, 5, 8, 9 and 10. But indirectly it also involves SDGs 2, 3 and 16, while it is facilitated by collective action in the domains of SDGs 4, 6, 7 and 11. When the target becomes 'inclusive green growth' – as for instance the Dutch government is aiming at – SDGs 13, 14 and 15 also need to be addressed concurrently.

One can take three basic positions in this intellectually challenging discourse:

1. Look at the actual biophysical, economic, social and political connections between the SDGs and its targets;
2. Classify the SDGs as part of a systems approach; and
3. Consider the basic principles that are at the core of all SDGs and take a more research-oriented approach.

The first approach was elaborated by Le Blanc (2015). He identified the various connections between the SDGs as the result of the political process through which the SDGs were formed. His analysis showed that some thematic areas covered by the SDGs are well-connected between one another, whereas other parts of the SDG-network have weaker connections with the rest of the system (Figure 1.5a). Le Blanc found that the political framework which the SDGs provide does not adequately reflect the array of actual interrelations known to exist from a scientific point of view. The range of links identified – for instance related to biophysical, social and economic systems – is far greater than the political ones that were recognised, agreed upon and adopted in the 2030 Agenda (ICSU and ISSC, 2015). So for instance, missing on the 2030 Agenda is the well-recognised link between energy use and industrialisation and its subsequent effects on climate change and ecosystems; as are the links between oceans and climate change, and energy and climate change (Le Blanc, 2015). Especially where missing links are known to be of strong systemic nature, it is important to integrate recognised insights into subsequent policy-making. Yet considering that the interconnections between the SDGs are complex (Costanza et al., 2016) and manifold, the political framework cannot possibly accommodate all relevant interconnections (Le Blanc, 2015). Hence it provides limited guidance in how to address these interconnections.

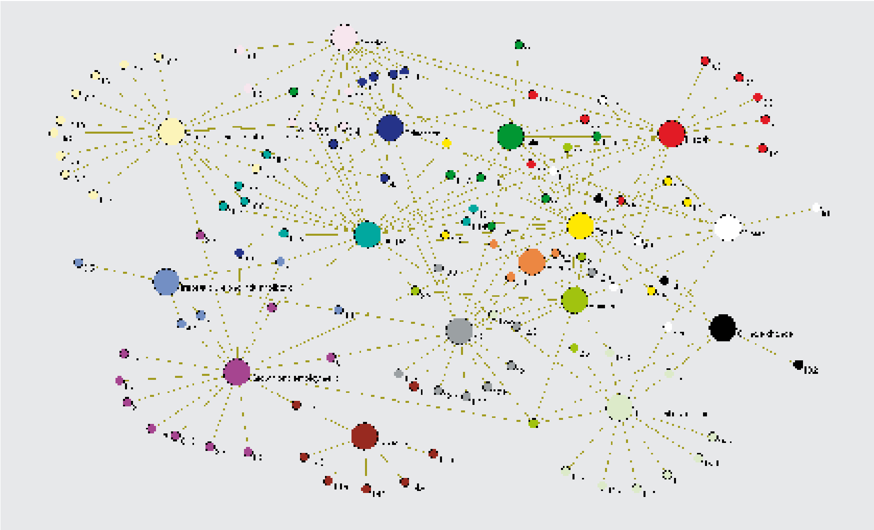
In order to guide actions towards achieving the SDGs, the nature and dynamics of the connections between the goals need to be better understood (Lu, Nakicenovic, Visbeck, & Stevance, 2015). Nilsson, Griggs, and Visbeck (2016) proposed a seven-point scale to rate these interactions, as a conceptual framework to help identify priorities for policy-making. Based on research in sustainability sciences, three general types of interactions between SDG targets can be discerned: positive (virtuous), neutral, and negative (vicious) dynamics. Positive interactions among SDGs occur when SDGs are enabling, when they are reinforcing, or when they are indivisible. Neutral, or consistent interactions describe a situation in which contributions towards one goal do not yield significant positive or negative interactions with another goal. Negative interactions arise when goals are constraining, counteracting, or cancelling (Nilsson et al., 2016). Systematic assessment of the nature, direction and dynamics of the many interactions among the SDGs should enhance a better understanding of the possibilities to leverage interventions for positive impact.

A second approach was embraced by the Stockholm Resilience Centre (2016). They developed a hierarchy of SDGs, in which the biosphere presents the general context in which all other goals need to be positioned (Figure 1.5b). Economies and societies are seen as embedded parts of the biosphere. The centre defines the planetary boundaries as the ultimate context within which humanity can continue to develop for generations to come, while ‘societies’ present man-made institutional conditions and ‘economy’ more or less how change can be organised in an efficient way. Partnering (SDG 17) is portrayed as the linchpin between all levels of interaction. The Centre argues that food as a resource, as well as the way we produce and organise society around it, actually connects all the SDGs.

The third nexus approach tries to define the basic principles on which all SDGs have been founded without defining which principle prevails. Many principles that have been introduced in the global arena play a role: from universal human rights principles, OECD guidelines on multinational enterprise, to principles as defined by the UN Global Compact. In the negotiation process around the SDGs, a number of principles were adopted that had first been discussed in the business sector. The so-called Triple-P (People, Planet, Profit) idea was adopted, yet with one adjustment: 'profit' – as a guiding principle for business – was replaced by 'prosperity', which is more strongly and explicitly related to common pool ambitions. An additional element introduced by governments and civil society representatives has been the principle of 'justice' and 'dignity'. In the final version of the SDGs, these two principles were summarised as 'Peace'. All actors supported the introduction of a fifth element: Partnering. So the resulting framework defines 5 Ps as foundation for all 17 SDGs, in which 'partnering' can be interpreted as a means for achieving the other four principles (Figure 1.5c). The partnering principle can therefore be considered of a slightly different order than the four other principles.

FIG. 1.5 *Three approaches to defining the nexus between SDGs*

[a] Interconnections of the SDGs According to Le Blanc (2015)



[b] Systemic Hierarchy of SDGs According to Stockholm Resilience Centre



[c] Five Basic Principles of all SDGs



1.4 RECEPTION OF THE SDGS: SUPPORT AND CRITIQUE

Societal support for the SDGs

The importance attributed to the SDGs as a leading frame can be witnessed by the way an overwhelming number of organisations from all parts of society – multinational enterprises, civil society organisations, governments and knowledge institutes – immediately embraced them. National governments of all UN member countries accepted the SDGs as a universal and inclusive ambition in which 'no one should be left behind' (UN, 2015). The SDGs also received support from a wide variety of international

organisations, including the Organisation for Economic Cooperation and Development (OECD), the World Resources Institute (WRI), the World Business Council for Sustainable Development (WBSCD) and the World Economic Forum (WEF). The WBCSD for instance described the SDGs as “an effective way for companies to communicate their contribution to sustainable development” (WBSCD, 2015:8).

Individual companies – many of them involved as stakeholders in the creation of the SDGs – also responded supportively: 71 percent of globally operating companies claimed that they were already planning how they would engage with the SDGs, with 41 percent stating that they will embed the SDGs in their strategies within five years (PwC, 2015). Additionally, 87 percent of a representative sample of Chief Executive Officers (CEOs) worldwide believe that the SDGs provide an opportunity to rethink approaches to sustainable value creation, while 70 percent of them see the SDGs as providing a clear framework to structure sustainability efforts (Accenture & UN Global Compact, 2016). There is a clear business logic to these responses: it is assessed that contributing to the SDGs can unlock $12 trillion USD in business opportunities (Business & Sustainable Development Commission, 2017).

International Civil Society Organisations (NGOs) have also become markedly supportive of the SDGs. World Wildlife Fund (WWF) for instance, one of the biggest environmental NGOs, classifies the SDGs as “different from anything that has come before them – they're fairer, smarter, and more inclusive.” WWF was closely involved in the drafting of the SDGs, as were many other international NGOs. As a result, the SDGs include many aspects that the organisation deeply cares about. But like any other NGO, WWF also acknowledges that the ‘hard work’ only begins now: “It’s now up to us all – governments, charities, businesses, and most of all citizens – to work together to ensure that these commitments become a reality” (WWF UK website, visited November 2017). Whether the ambitions will be achieved depends on the strategies adopted by stakeholders. The early signs are positive.

Critique
In the course of the adoption of the SDGs, serious criticism was formulated along at least two interrelated lines: (1) on the actual choice for the 17 main goals and their sub-targets as being too ambitious or not ambitious enough, and (2) on the feasibility of their implementation – partly related to a lack of data, but primarily related to a lack of priorities and finance.

The SDGs are too ambitious
While the MDG-agenda aimed at halving poverty, the new agenda aims at eradicating extreme poverty in all its variants. Even for optimists, this goal is deemed unrealistic and may lead to discouragement once participants find out that targets will not, not fully or not evenly be achieved. The 17 goals are also considered too broad. This has been a line of critique that has been formulated in particular by the Copenhagen Consensus Centre and its director Bjørn Lomborg. The risk is that the SDGs lack focus, which might get the world ‘stuck in the transition’, not least because the ambitions require immense financial, human, and intellectual contributions. Matters of execution – in particular financial considerations – have been left open in the process, which leaves the goals without means and priorities. Not making choices will create further stagnation in progress. Lomborg argues that from the appearance of the agenda – not only the 17 goals, but also the 169 development targets – the UN simply ‘threw everything they had

heard into the document'. The targets are asserted to be misguided and not based on research of what is feasible. Even worse: collecting data on the 169 promises could cost almost two years of development aid. As a result, it is argued that the agenda will leave the world's poorest far worse off than they could be. Instead, the Copenhagen Consensus Centre proposes to focus on only 19 targets (approximately 10 percent of the original 169 targets), which are more achievable in the shorter run. These targets were defined by a group of leading scholars, including a number of Nobel Laureates in economics.

Not ambitious enough?

A number of scholars suggest that the SDGs do not actually present a paradigm change. The SDGs are insufficiently radical in their analysis of systemic crises. According to Gupta and Vegelin (2016), real economic transformation is still undermined because of the idea that economic growth and its trickle-down effects will be sufficient to get people out of poverty. The involvement of existing and influential stakeholders, such as big companies and other vested interest groups, makes it highly unlikely that the SDGs will create real change. These critics focus in particular on the level of relevant indicators and prioritised nexus relations that might evoke a more defensive reaction to sustainability challenges, and in the end will not create transition at the required pace and intensity.

A major line of critique has been formulated on the lack of implementation clarity: who is going to pay for the implementation and how is progress going to be measured? A considerable number of the indicators proposed for measuring progress are still under construction or cannot be collected in relatively weak states. Furthermore, the discourse is whether the indicators actually measure the most important dimensions and attribute responsibilities to the most relevant societal stakeholders. It is still unclear how the SDGs can be achieved financially and measured intellectually. Organisations and countries are using their own methods. Following the introduction of the SDGs, a large number of tools (like the SDG Compass) were developed, but their impact and relevance on achieving the SDGs and tracking progress are not yet properly evaluated and scaled. This points at a comparable weakness for which the MDGs were criticised: they were also evaluated with diverse methods, making it difficult to properly compare and analyse progress and success (Janoušková et al, 2016). Tools for implementation and evaluation are still diverse, making accountability for nations, organisations and individuals equally problematic. According to Pogge and Sengupta, "accountability is the key to effective development goals [...] without detailing such specific responsibilities [the SDGs] remain a mere list with little moral force" (Pogge and Sengupta, 2015: 573). It may therefore not come as a surprise that – after 'white-washing' (tax evasion), 'green-washing' and 'blue washing' – a new term has been introduced for companies and organisations that state they embrace the SDGs, without really trying to implement them: 'SDG Washing'.

1.5 CONCLUSION – A PROMISING AND INTRIGUING AGENDA

The SDGs explicitly address the problems that were related to the 'old paradigm' of sustainable development, both in terms of goals and stakeholder engagement. They explicitly address, for instance, the bystander effect by aiming at positive change and by embracing the inclusive dictum of 'no one left behind'. Whether these ambitions will be achieved depends on the strategies adopted by societal stakeholders. The critics can be proven right if the goals are not successfully implemented. On many accounts, however, the SDGs can be considered a promising point of departure or an interesting breach with past practice. But they are not easy and straightforward to address, let

alone to solve. The SDGs best present a global agenda and a frame, not a fixed, spelled-out blueprint. The grand challenges of society as framed by the SDGs require new approaches that go beyond existing, relatively simplistic paradigms related to the roles and responsibilities of governments, companies and citizens in enhancing sustainable development. In part this is due to growing awareness that many of these models have proven inadequate or created unintended negative effects; in part because the internet era that has materialised over the past decades, requires and facilitates novel concepts and resolutions.

Critics of the SDGs will be proven right in case:

- Complexity and systems thinking indeed leads to a lack of priorities and choice stress;
- The finance gap for all these ambitions will not be bridged with complementary action by societal stakeholders, including companies and civil society;
- Companies and societal parties will not be able to effectively fill the institutional void or partnering space that is required to overcome the tragedy of the commons and overcome the bystander effect, in order to develop more common goods;
- Stakeholders look at the SDGs from a defensive point of view, rather than perceiving them, and taking them, as an opportunity;
- Negative frames prevail, partly because positive adjustment strategies are not really implemented;
- The dynamics of the transition remain poorly understood; for instance, that inclusiveness also requires some form of 'exclusiveness' and that sequencing of efforts is important;
- There is limited 'fit' between the efforts of companies – often in partnerships – and the issue at hand;
- Policy-makers and strategists favour one-size-fits-all models; there are actually many models and solutions possible and needed, depending on contextual circumstances and the complexity of the challenge. Creative solutions require diverse approaches.

The conclusion to be drawn from this chapter is therefore: the new paradigm for Sustainable Development as exemplified by the SDG approach largely answers the question of 'Why' for the active engagement of companies and other societal actors in the creation of a resilient world. That is a promising start.

PART II WHAT & WHO?

THE SDGS AS ‘WICKED PROBLEMS’ – WHO SHOULD ADDRESS WHAT?

Business relevance:
Complex, interconnected problems like those presented by the SDGs are called ‘wicked problems’. These are global, systemic challenges that are ambiguous and ‘unknowable’ and even resist definition: each problem appears to be a symptom of other problems, and cannot be properly understood without a proposed solution in mind. In the face of interconnected wickedness, how do we prioritise the SDGs? Which is the most wicked of them all?

The level of wickedness of a problem can be assessed by examining its complexity and ambiguity. Part II defines five dimensions of complexity and three types of ambiguity. In this ambiguous, complex, and unknowable world of wicked SDGs that must be addressed, who takes responsibility for what? Wicked problems cannot be successfully approached with old management or leadership mindsets, or with old organisational structures. Uncertainty and complexity are usually thought of as conditions that should be contained, managed and preferably eliminated. For wicked problems, however, there are only solution-oriented *approaches* with unknown, ‘clumsy’ outcomes. Collaboration is needed. Partnerships are key.

In the partnering space societal actors can take up and share responsibility for societal issues. The SDG agenda urges agents from all spheres in society, including governments, the private sector, and civil-society organisations, to contribute to the achievement of the 17 Goals. Each of the sectors brings complementary capabilities for contributing to sustainable development challenges. Wicked problems can turn into wicked opportunities if taken seriously, with a proper balance in having and taking responsibilities by complementary sectors.

Questions for business schools:
- How does the ‘wickedness’ of a problem influence the willingness of SDG stakeholders to take responsibility, or to be ‘bystanders’?
- How can business schools encourage practical collaborative action cross-sector partnerships) towards the SDGs in the face of uncertainty, ambiguity and complexity?
- What can management theory tell us about the positive side of this ‘wicked problems as opportunities’?
- How can management theorists shift their research from seeking ‘best practices’ with finite solutions to an approach with looser, ‘clumsier’ outcomes?

In Part I we argued that the Sustainable Development Goals (SDGs) highlight a paradigm shift in the way we approach today's grand, systemic challenges. But *what* does a systemic approach to grand challenges actually entail? And *who* is going to address these challenges? In Part II we use systems, complexity and ethical theory to clarify and define principles of taking, assigning and having responsibility for addressing each of the SDGs.

Section 2.1 explains the implications of looking at the nature of the challenges posed by the SDGs in terms of 'wicked' problems. Wicked problems are systemic and in general do not have clear solutions, only approaches for which multi-stakeholder action is needed. How 'wicked' are the various challenges as specified by the SDGs? Section 2.2 defines a scale of wickedness that consists of a problem's ten complexity dimensions. Assessing the degrees of complexity provides an indication of the degree to which collective action is needed. Section 2.3 identifies and elaborates three types of ambiguities related to dealing with complexity. Section 2.4 then applies a 'societal triangulation' technique to further define the societal origins of the problem in order to understand who best should take responsibility for successfully addressing the problem. This is further explored in Section 2.5, by distinguishing four intervention levels at which societal issues occur, based on a more detailed understanding of the primary (or fiduciary) duties of societal sectors and the way they can be held responsible for the consequences of their action or inaction. Section 2.6 considers which of the169 sub-targets were linked to the 17 SDGs and analyses which societal sectors were targeted per SDG. With this more specific level of analysis, we will see that not all SDGs might require the same level of involvement of all societal sectors. But more importantly, we will also see that not all sub-targets (as they were agreed upon in the SDGs) cover all relevant dimensions of sustainable development. Section 2.7 offers a conclusion.

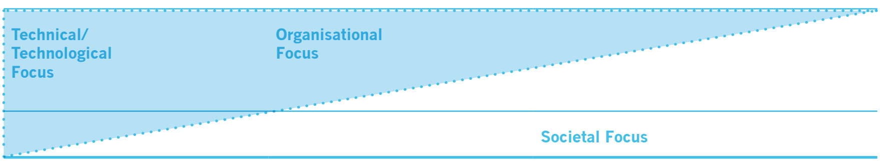
2.1 SOURCES OF WICKEDNESS: WHAT IMPLICATIONS FOR THINKING ABOUT THE SDGS

When confronted with problems, we generally think of them as either simple or complex. Simple or 'tame' problems are (relatively) easy to solve: the problem can be unambiguously defined, approaches and principles for working towards a desired outcome are known and clear, and solutions are either correct or incorrect. Complex problems, on the other hand, resist solution: the exact nature of the problem, solution and cause-effect relations are unclear, but can be known over time. Coming up with adequate solutions then often requires other ways of thinking, or a rethinking of dominant mental models, theoretical insights, values and convictions.

There are also problems that go beyond being complex: 'wicked problems'. Wicked problems even resist definition: each problem appears to be a symptom of other problems, and cannot be properly understood without a proposed solution in mind. The nature and extent of the problem, cause-effect relations and solutions are largely unclear, unknown, ambiguous and unstable. And since there is no credible way of structuring, fully understanding and defining the problem, it is impossible to know when it has been satisfactory resolved. Consequently, wicked problems have no 'stopping rule' that signifies the problem's end. Wicked problems require not only new and different ways and frames of thinking, but also need the involvement of a variety of interested parties to address them (Table 2.1).

TABLE 2.1 *Simple, Complex and Wicked Problems compared*

Simple/Tame	Complex	Wicked
RELATIVELY EASY TO SOLVE	RESIST SOLUTION	RESIST DEFINITION
Clear problem with a clear solution	The problem and solution are not clear, but can be understood with time	Boundaries of the problem and its workings unclear; problem and solution not understood and keep shifting when we try to define them
Single loop learning required: incremental, transfer of existing knowledge and solutions	Double loop learning required: restructuring and reform; reflection and critical analysis needed	Triple loop learning required: transformational mindsets searching for new realities; taking action in order to discover the workings of cause-effect dynamics; de-learning, re-learning and breakthrough thinking needed
Leading question: 'are we doing things right?'	Leading question: 'are we doing the right things?'	Leading question: 'are we doing the right things right?'
• Predictable • Straightforward • Obvious • Quantifiable	• Many elements, but the elements themselves are familiar • Hidden root causes • Non-linear • Inter-operating parts affect each other	• Many elements, of which many are hidden/ disguised/hitherto unknown • Cognitive, strategic and institutional uncertainty • Complex and multilayered relations and interdependencies • Chaotic, with (largely) unpredictable dynamics; open ended • Many stakeholders with conflicting perspectives and spheres of influence; fragmentation • Strong social aspects • Involves changes in belief, behaviour and/or identity • No right/wrong solution • Vital intangible, non-quantifiable elements • No precedent



Sources: based on Rittel and Webber, 1973; mofox.com; Olsson, 2010; Van Tulder, 2012; Waddock et al., 2015; Alford and Head, 2017

Most of today's pervasive problems as included in the SDGs are in fact wicked. They are systemic in nature, complexly interrelated and materialise at the interface between public-private and profit-nonprofit interests. They are wicked both by nature and design (Nie, 2003). The latter dimension refers to the politicisation of the problem by interest groups and various societal stakeholders. Wicked problems pose analytical, as well as a myriad of governance and administrative challenges (Daviter, 2017; McConnell, 2018). Consequently they are tough to address, let alone to solve. Addressing wicked problems often requires large systems change, involving pervasive shifts in the dynamics of multiple, interacting yet independent institutions organised around the problem domain in desired directions over time (Waddock et al, 2015); otherwise they could and probably already would have been tackled unilaterally by either firms, governments or civil society organisations. Wicked problems hence demand systemic, emergent and participatory approaches that include a wide range of societal actors. This is challenging,

as the boundary-spanning and ambiguous nature of wicked problems tends to generate conflict among multiple stakeholders attempting to frame, analyse and act on them in line with their own perceptions, needs and interests. These conflicts themselves often create misleading frames that complicate matters more, and so increase the level of wickedness. Wicked problems are prone to creating ideological battles. Paradoxically, however, wicked problems can probably only be resolved by collective action and engaging a large diversity of stakeholders in creating and implementing progress. A more inclusive and comprehensive approach to addressing wicked problems is increasingly considered "not to be a curse, but the cure" (Daviter, 2017: 574).

Wicked versus tame

A 'tame problem' on the other hand, is one for which more traditional, linear thinking and decision-making is sufficient to produce a workable solution in an acceptable time frame. A tame problem:

- Has a well-defined and stable problem statement (very often on a technical level);
- Has a definite stopping point: the moment at which the solution is found (which solves 'the problem');
- Has a solution which can be evaluated as either right or wrong;
- Belongs to a class of similar problems that can be solved in the similar way (and for which scientific knowledge in a more traditional sense is applicable);
- Has solutions which can easily be tried and abandoned, 'trial and error' (which makes it easier to evaluate and monitor progress during implementation);
- Comes with a limited set of alternatives (which makes it relatively easy to define what works best).

The distinction between 'tame' and 'wicked' should not be confused with 'easy' and 'hard' problems. Many tame problems are indeed quite hard, yet can absolutely be solved when given sufficient time. To illustrate, putting a man on the moon was a problem which originally looked extremely daunting. As soon as the political will and the funding were there to enable the project, however, the 'giant leap for mankind' appeared to contain surprisingly many tame elements. The problem definition – putting a man on the moon and returning him safely – did not change over time. There was a clear point of accomplishment (successfully putting the man on the moon), and the various solutions that were experimented with could be clearly evaluated as having either succeeded or failed. Most of the problems were technical in nature and could be addressed through accumulated and established knowledge in other scientific areas. Alternatives were not too diverse to create a very complex selection environment. It is clear that the objective of putting a man on the moon could not have been achieved one century earlier; it required a certain level of technological progress and favourable contextual conditions. It has also become clear that putting a man on the moon did not solve the more complex, even wicked problems for which the endeavour was also intended: US rivalry with the Soviet Union, American economic decline and leadership, changes in technology, or any other problems in the US economy. Consequently, ambition withered later on in the space programme.

Technical or societal

The more 'societal' and the less 'technical' a challenge is, the greater its potential to become wicked. The original thinkers behind the 'wicked problem' idea – urban planning scientists Horst Rittel and Malvin Webber – had in 1973 already argued that we increasingly live in a time in which most problems cannot be solved by planning, as both the

observed conditions of societal issues, and the desired conditions, have become almost indeterminable. As Rittel and Webber put it in their influential, thought-provoking paper (1973: 155, 159, 168):

- *"As we seek to improve the effectiveness of actions in pursuit of valued outcomes, as system boundaries get stretched, and as we become more sophisticated about the complex workings of open societal systems, it becomes ever more difficult to make the planning idea operational."*
- *"[I]n a pluralistic society there is nothing like the undisputable public good. (…) In a setting in which a plurality of publics is politically pursuing a diversity of goals, how is the larger society to deal with its wicked problems in a planful way?"*

They recognised that in particular rational-technical policy design for complex (societal) problems generates mere compartmentalised, artificial 'would-be' solutions that may well temporarily suppress some of the symptoms ('taming the problem'), but eventually lead to even greater undesired consequences. Mis-fitting the level of societal complexity at hand inevitably results in governance failure.

Since Rittel and Webber's seminal paper, many others have followed through on this theme by arguing that wicked problems in particular require leadership, other manners of diagnosis and thinking, other ways of governance and organising, perhaps even other types of science and research (Grint, 2008). Rittel and Webber themselves had neither an answer nor a theory on how to dispel wickedness, but effectively called for awareness on dealing more wisely with these kinds of intractable problems. It has inspired scholars and practitioners to come up with collective, more solid and discursive ways of dealing with wicked problems. This section will further explain what this line of thinking implies for a correct understanding of the SDGs.

Why no wicked solutions?

The originators of the wicked problems theory were very clear about the potential for wicked problems to be solved. They came to the conclusion that "social problems are never solved. At best they are only *re*solved – over and over again" (Rittel and Webber, 1973: 160). They specifically distinguished wicked problems from tame problems based on this insolvability. Wicked problems are characterised by high degrees of complexity, erratic dynamics and ambiguity. According to Laurence Peter, "you have to be highly intelligent and well informed just to be undecided about them." Various scholars have described wicked problems as being so 'messy', 'intractable', 'uncontrollable', 'contested' and 'recalcitrant' (Fischer, 1993: 175; Crowley and Head, 2017) that at best they can only be "alleviated, superseded, transformed, and otherwise dropped from view" (Wildavsky, 1979, 386, in Daviter, 2017: 571). Bardi (2015) goes even further by asserting that "in a complex system, there are neither problems, nor solutions. There is only change and adaptation." Xiang (2013), who performed a literature overview of wicked problems theory, does not even mention the verb 'to solve' as part of wicked problems thinking.

Thinking in terms of solutions instead of problems is not only tempting, but also preferred by many management scholars and consultants. Policy makers demand solutions as well. Thinking in terms of 'best-practices', 'reduction of random events' and the controlling of 'disequilibria' and 'imbalances' still prevails in management thinking. Uncertainty and complexity are usually thought of as conditions that should be contained, managed

and preferably eliminated. For wicked problems, however, there are no optimal ('best') or moral ('right' or 'wrong') solutions, only solution-oriented approaches with unknown outcomes. Nor are wicked problems amenable to resolution by employing contemporary tools for strategy analysis and decision-making. Conventional strategic management models are rendered impotent in the face of wicked problems (Fahey, 2016: 29).

Wicked equals clumsy

In order to get out of this predicament, some authors have suggested characterising solution-oriented approaches to wicked problems as the search for 'poly-rational' or – more provocatively – 'clumsy' solutions. This idea originates from Cultural Theory (Verweij et al., 2006), a conceptual framework that distinguishes types of rationalities in explaining societal conflict over risk. The concept of 'clumsy solutions' advises not to pursue perfect solutions for uncertain, complex and normative problems, but rather to search for just-viable solutions. The idea is to mix all possible ways of thinking, perceiving and organising as a technique to 'reduce the unexpected' (Hartman, 2012). The design method for generating clumsy solutions is based on the recognition that policy efforts need to be as divers as contemporary sustainability problems (Ney and Verweij, 2015). It also reflects the importance of dialogue-based problem-solving approaches that combine a variety of perspectives on society's wicked problems, and possible ways to resolve them. A clumsy solution, consequently, is one that everyone can more or less agree with. It is less perfect – and might look a little inept, even 'messy', being patched together from different frames – yet is responsive to different rationalities (ibid). IIASA research suggests that clumsy solutions tend to be the more successful ones (cf. Verweij and Thompson, 2011). Clumsy policies – those that involve all voices to reach a negotiated compromise – were found to be the more robust ones; others encountered so much opposition that often they were not implemented, or did not last.

Problems are also opportunities

Where societal boundaries shift, blur or dissolve altogether, uncertainty and ambiguity thrive. The resulting voids and transition frictions not only generate new complexities conceived of as 'problems', but also create new space, and hence opportunities, to address societal problems in innovative ways. Driven by developments in digitalisation, connectivity and new modes of collaboration and organisation, the 'art of the possible' is expanding (Kelly, 2015), enabling new approaches to societal challenges. For those capable of seeing the world through different eyes, complexity may be explored and leveraged as a means to drive breakthroughs.

From that angle, wicked problems can also be reframed as 'wicked opportunities' (Eggers and Muoio, 2015). According to Paul Polman, CEO of Unilever, wicked problems can be converted into opportunities with the right type of leadership, which stimulates people and organisations to work together on the challenge (quoted in Eggers and Muoio, 2015). Spencer is just as optimistic and contends that "the more complex our world, the bigger our canvas becomes on which to paint an unlimited amount of transformational and aspirational ideas". He calls for an upsurge of wicked organisations, wicked innovators and wicked entrepreneurs in order to flourish in an 'era of Wicked Opportunities' (Spencer, 2013). Referral in this context is made to complex 'ecosystems' that have emerged and evolved in the last decade around societal issues (Eggers and Muoio, 2015). Ecosystems are thereby described as "dynamic, co-evolving communities of diverse actors who create new value through increasingly productive and sophisticated models of both collaboration and competition" (Kelly, 2015: 5). As a concept, these ecosystems have the capacity to

develop innovative, co-created and interconnected solutions that address fundamental human needs or desires and societal challenges. The diversity of players involved – in terms of societal spheres, size and capacities to create, organise and scale – and their assumed collective ability to learn, adapt and innovate together, are highlighted as key determinants of their success (ibid: 4).

So the grounds of these ecosystems seem conducive for creating opportunity. Yet to keep ecosystems in healthy shape, it is important that opportunities not mainly accrue to the 'happy few' who are in position to surf the VUCA tides and reap their fruits. This would undermine the legitimacy of the idea of 'collaborative advantage' (Huxham and Vangen, 2004), 'the commons' of a shared ecosystem. The analogy of 'invasive species' ('free riders', in economic terms) might even come up. The delicate balance between competition and collaboration is easily lost, once opportunities result in success and gains to be distributed. It is also vital that wicked opportunities do not mirror overly optimistic or superficial claims of the extent to which they are actually contributing to the resolution of a wicked problem. And it is essential that all participants of the ecosystem live up to their individual and joint responsibilities, for which governance structures that are adaptive enough to allow for innovative solution-seeking approaches need to be in place.

The persistent challenge thus remains whether the wicked opportunities that these ecosystems may provide can indeed be captured in change trajectories that cover all interrelated dimensions to an extent that adequately addresses societal problems. Opportunity for progress may apply to parts of the unsolvable knot of wicked problems and may gradually bring more structural resolutions closer, but to what extent can these be leveraged, adaptively scaled and expanded in scope to deal with the whole?

The practical relevance of the idea of 'collaborative advantage' critically depends on appropriate cross-sector collaboration, embracing systemic goals and incremental and adaptive change, while 'leaving no one behind'. Yet this should not be approached naively either. Cross-sector collaborations with transformational power are not formed overnight; these involve insightful and strategic consideration. Also, contemporary partnership practice has been criticised for not adequately addressing systemic change, for instance due to unfit or sub-optimal partnering configurations, misaligned issue-partnership fit, ambitions that are too limited, or private sector partners that are too dominant (Van Tulder and Keen, 2018). Hence with 'wicked opportunity' comes 'collaborative complexity' (Schneider et al., 2017).

So should we consider the SDGs as wicked problems, wicked opportunities or something else? This depends on questions covering three areas: (a) the intensity of the issues related to the SDGs; (b) the societal origins of their wickedness; and (c) the kind of approach that is needed to address the SDGs. These are the topics of the remainder of this Part.

2.2 DIMENSIONS OF COMPLEXITY: WHAT MAKES THE SDGS WICKED?

Not all wicked problems are equally intractable; not all SDGs are equally wicked. Societal problems vary in their degree of wickedness, depending on a number of conditions that define the level of their complexity. The literature on wicked problems and systems change distinguishes a large number of relevant dimensions (cf. Alford & Head, 2017; Waddock et al., 2015; McConnell, 2018; Australian Public Service Commission, 2012). In general, we can argue that the extent of complexity of a problem can be assessed along the following classifications:

- **Structural complexity:** is created in case the number of elements of a problem is massive; the more dimensions that come into play (political, economic, social, legal, technological and environmental dimensions), the more 'systemic' a problem is, and the more elements one should take into account to grasp the problem;
- **Generative complexity:** increases when the interconnectedness between elements intensifies; interacting elements unfold in unpredictable ways; (root) cause and effect are not easy to distinguish and sprawl different effects across time ('now' versus 'later') and space ('here' versus 'there');
- **Dynamic complexity:** involves differences in pace and direction in the evolvement of and between different elements; includes, for instance, non-linearity, non-synchronicity, non-continuity; divergent, convergent, iterative or erratic movements;
- **Communicative complexity:** is created if information is (a) actively moulded to accommodate the interests of some; (b) influenced by the perception, behaviour, preferences and emotional connectivity and receptivity of people; (c) in ways and by means that are not transparent, cannot be verified and/or are not fully understood; (d) which lowers trust in the messenger as well as the information itself ('fake news'; 'post truths'); and (e) that may lead to further fragmentation, individualism and polarisation;
- **Societal complexity:** exists when the amount and diversity of stakeholders involved or affected is extensive; this factor is mirrored by differentiation in 'logics', interests, perceptions, means and power.

Each of these five categories of complexity includes at least two different dimensions of 'multiplicity'. Together, these constitute a checklist on which higher or lower degrees of wickedness can be scored (Scoreboard #1).

TABLE 2.2 *Scoreboard #1 Assessing levels of complexity and wickedness*

Dimension of complexity	Degree of complexity depends on....	Score Simple Complex Wicked <---> 1 2 3 4 5 6 7
STRUCTURAL COMPLEXITY		
1. Multi-dimensional	The systemic nature of the problem (including Political, Economic, Social, Technological, Legal and Environmental aspects)	Low High <---> 1 2 3 4 5 6 7
2. Multi-level	The extent and scale to which the impact of the problem manifests itself at different levels (micro-meso-macro)	Limited High <---> 1 2 3 4 5 6 7
GENERATIVE COMPLEXITY		
3. Multi-cause	Number of identifiable/assumed root causes that underlie the problem	Low High <---> 1 2 3 4 5 6 7
4. Multi-symptom	Number and scale of symptoms that can be attributed to the problem	Limited High <---> 1 2 3 4 5 6 7
DYNAMIC COMPLEXITY		
5. Multi-directional	Extent of differences in nature of interactions and interdependencies between elements (divergent, convergent, iterative, erratic)	Low High <---> 1 2 3 4 5 6 7
6. Multi-paced	Dynamics of the problem; from linear to non-linear; sense of urgency, inertia and degree of denial	Low High <---> 1 2 3 4 5 6 7
COMMUNICATIVE COMPLEXITY		
7. Multi-frames	Number of competing explanations and understandings (‘alternative truths’)	Low High <---> 1 2 3 4 5 6 7
8. Multi-source	Level at which information and sources of the message can be unambiguously verified	High Low <---> 1 2 3 4 5 6 7
SOCIETAL COMPLEXITY		
9. Multi-stakeholder	Number of involved or affected parties; variety in logics, stakes, expectations, behaviours and identities	Low High <---> 1 2 3 4 5 6 7
10. Multi-responsibility	Sources of responsibility, related to roles, loci of power, control, means and influence and shifting boundaries	Low High <---> 1 2 3 4 5 6 7

Score interpretation: 10-20 = simple; 20-35 = complicated; 35-50 = complex; 50-70 = wicked

2.3 SOURCES OF AMBIGUITY IN ASSESSING THE SDGS

Wicked problems are called 'wicked' for a reason: there are clear limits to a profound and detailed understanding of their exact nature, their workings and the likely effects of interventions. Yet we should not treat wicked problems as black holes of massive uncertainty, ambiguity and chaos. To quote former US secretary of defense Donald Rumsfeld in a television interview: "There are known knowns. These are things we know that we know. There are known unknowns. That is to say, there are things that we know we don't know. But there are also unknown unknowns. There are things we don't know we don't know." Complexity comes in degrees. Certain dimensions of complexity can be reduced as we gradually become more knowledgeable about them in empirical, analytical and conceptual terms. With regard to more abstract dimensions of complexity, concepts like memes, sense-making and narratives are used in an attempt to capture tacit and intuitive ways of 'knowing' and deeper structures of 'meaning'.

It can be argued that we currently know more about the structural and generative complexities that the SDGs face than we know about their dynamic, communicative and societal complexities. How interdependencies, varying paces (speeds) and frames relate to each other and affect the other complexity dimensions, is still largely obscure. Often, this can only be checked and experienced from actual interventions. These interventions, in turn, are heavily shaped and influenced by societal complexities that result from the large variety of stakeholders that are needed for a successful approach to most of the SDGs.

The descriptions that were introduced in Part I as to the 'why'-question related to each SDG (Table 2; Figure 4a) already hinted at a considerable degree of complexity, and both known and unknown 'knowns' and 'unknowns'. Further light can be shed by distinguishing three sources of ambiguity:

- 1. Knowledge ambiguity: Do/can we know?
- 2. Predictive ambiguity: Can we predict?
- 3. Intervention ambiguity: Can we successfully intervene to reach the intended effect(s)?

Ad.1. Knowledge ambiguity:

The knowledge basis of each SDG requires a considerable amount of basic data and sophisticated information. Relevant information on achieving the SDGs – particularly in poorly governed or unstable regions of the world – is often incomplete, hidden, disguised or intangible. Also, definitions of the problem may change over time, may not capture the whole of the phenomenon, or are considered inconvenient, impractical, conflicting or irrelevant, and therefore politically contested.

Take for instance the definition of 'Poverty' under SDG1. The international community chose to create a money benchmark by way of 'objective' definition. First, the actual benchmark changed over time: it moved from below one dollar per day, through 1.25 dollars perday to (now) 1.9 dollars per day (World Bank, 2017). Secondly, poverty has an absolute and a relative dimension, which prompted some countries to introduce a 'poverty line' that is often much higher than the benchmark of 1.9 dollars per day. This obscures the number of people living in absolute poverty, so ambiguity on the level of 'absolute' poverty still exists. Thirdly, exactly what constitutes poverty is context

dependent. In the context of the supply chain (SDG12), the concept of 'living wage' is considered appropriate; from a macro-economic perspective, poverty is related to income 'inequalities' (SDG10) as an indicator of 'relative poverty'. This leaves aside more philosophical discussions on what defines 'mental poverty'. Comparable definition problems appear for concepts like 'biodiversity', 'fair', 'inclusiveness' – all concepts that are part and parcel of the language surrounding the SDGs. Internally-conflicting goals or objectives, interdependencies and multiple causes (dimensions 1-4 of Scoreboard #1) will continue to make many of the topics covered by the SDGs hard to clearly and unambiguously define and measure. Disagreement among stakeholders often reflects the different emphasis they place on the various causal factors (dimensions 7 and 8 of Scoreboad #1). Successfully addressing wicked policy problems usually involves a range of coordinated and interrelated responses, given their multi-causal nature; it also often involves trade-offs between conflicting goals.

Ambiguity applies alike to an issue such as 'health' (SDG3). Health has a curative and a preventive side, a mental and a physical side. The aim of SDG3 is to ensure healthy lives and promote well-being for all at "all ages". But the measurement of 'well-being' is not easy to define, neither in absolute nor relative terms. Definitional ambiguity applies less to issues like 'access to education' measured in terms of children going to school (SDG4), 'access to energy' measured as people with access to electricity (SDG7), or to output-oriented targets related to climate action (SDG13) measured in CO^2 emissions, life below water (SDG14) or on land (SDG15), measured in terms of species and degrees of pollution. But even these relatively straightforward SDGs often comprise multiple complex variables and require an understanding of many causal links. This problem is aggravated in case the available knowledge is fragmented amongst multiple stakeholders, each holding some but not all of what is required to understand the problem.

Another source of ambiguity is related to knowledge-framing, in which some of the knowledge receives either too much or too little attention because of the way it is framed and presented. Famous statistician Hans Rosling (2018) argues that a neutral look at the statistics of development (covered for instance by general poverty statistics) should provide people with a much more optimistic frame than they are inclined to have. He argues that humans tend to attach more value to bad news than to good news; that we tend to focus on danger; anticipate scarcity; look at what needs to be done now, rather than focus on what can be done later. As a consequence, positive change (see Part I) is difficult to establish because of the negative frames that persist in the media in particular on grand challenges. Knowledge-framing may also take a more malicious form when information is actively molded to accommodate the interests of some. Parkhurst (2016) for instance, points to the deliberate creation of 'evidentiary bias' that may further drive intractability, by distinguishing between 'evidence-based policy making' and 'policy-based evidence making'. There are fundamental questions to be raised about which bodies of information and evidence can be considered relevant and trustworthy, and how to prioritise between those bodies. Knowledge ambiguity is hence highly related to processes of evidence creation, selection of evidence and interpretation of evidence, both in a technical sense (is the information scientifically valid?) as in political sense (what is the interest behind the information and why?).

Ambiguity in the perception of a factual status of the problem feeds into the wickedness of the issue. Such communicative complexity (dimensions 7 and 8) adds further complexity to the other eight dimensions. The framing challenge itself is influenced by the definition of the problem; the nature and extent of the problem depend on who has

been asked, that is, different stakeholders have different versions of what the problem is. Often, each version of the policy problem has an element of truth; no version is complete or verifiably right or wrong in absolute terms. The debate concerning the causes, the extent and the solutions to climate change (SDG13) provides a good example. In this area, knowledge ambiguity is particularly based on generative complexity (dimensions 3 and 4), as both the symptoms and assumed causes of global warming (the extent to which climate change is 'man-made') are drawn into question by an important group of stakeholders (like the US government and some oil companies). The wickedness of the problem increases, even in the face of almost full consensus amongst global experts (dimensions 1-4) on the relevance and impact of the phenomenon.

As regards the 'knowability' of the issues that are addressed by the SDGs, considerable progress has nevertheless been made on defining the variables on which to measure and track progress. The UN and various other organisations have developed databases to take stock of developments in each of the SDGs, whilst all countries have promised to develop statistical capacity to measure progress. The UN SDG indicator database provides access to data compiled through the UN System in preparation for the Secretary-General's annual progress report on the SDGs.[1] The database also provides a good starting point for a discussion on general trends in each of the SDGs.[2] This exercise is, however, surrounded by considerable ambiguity: first because of missing statistics, secondly because not all countries are able (or willing) to contribute relevant information, and thirdly because of missing indicators.

The list of indicators for the SDGs is much larger and more detailed than the indicators of the MDGs, but should still be considered a work in progress. The 17 goals have been further elaborated in 169 sub-targets for which more than 230 official indicators were agreed upon (UN, 2015); 150 of these indicators have more or less well-established definitions. Most of these indicators have been developed by national statistics bureaus and thus have a considerable macro-oriented bias. Furthermore, when countries began to measure for these indicators, they encountered one of two problems for almost half of the indicators: (1) some of the indicators could not be measured because they were difficult to quantify (which prompted countries to search for different indicators); and (2) other indicators were not available in all countries (which made it difficult to compare progress at a global scale). Dutch policy research shows that the challenge of non-available or non-measurable indicators is particularly relevant for SDG16 (peace and institutions) and SDG17 (partnering for the goals) (Statistics Netherlands, 2018). Also, a number of data-driven partnerships have been initiated, such as the one between the Bertelsmann Foundation and Sustainable Development Network (2017) that developed an SDG Index and Dashboard, which concentrates on international spill-over effects and also identified major indicator and data gaps (around 40) that require further elaboration.

Ad.2 Predictive ambiguity:

The SDGs in general aim at large and transformational changes at a global scale. Yet complex dynamics seldom bring about predetermined or predictable outcomes. Small changes can unfold largely unforeseeable system dynamics, leaving 'traces' and creating

1 https://unstats.un.org/sdgs/indicators/database: provides information on the SDGs by (a) indicator and (b) on country or area basis; the database also has a metadata repository that help you to follow the 'work in progress' that the UN is engaged in.

2 Another source of general trends is provided by the Sustainable Development knowledge platform: https://sustainabledevelopment.un.org/

path dependencies with 'no right to be wrong', and no ultimate correct answer. The more wicked the problem is, the more every single intervention can have irreversible consequences, making the intervention – in the words of Rittel and Webber (1973) – a 'one shot operation'. These wicked problem characteristics apply to all SDGs to a greater or lesser extent, yet appear especially relevant in the context of efforts related to institutional change (in particular SDG16 and SDG17) that require longer term policy measures and define the legal and institutional conditions under which change can be organised.

Knowledge ambiguity feeds into predictive ambiguity. One cannot build predictions on what is insufficiently understood, nor can one extrapolate developments under highly uncertain, unstable and contested conditions. That would involve making assumptions about how unmeasurable things affect other unmeasurable things (Krugman, 2013). Almost all SDGs represent a 'moving target', evolving at the same time that multi-stakeholders are trying to address the problem with a variety of efforts, from different angles, at different scales and with different impacts. The prognoses underlying many of the SDG-targets are necessarily marked by assumptions – many if's – based on aggregate (growth) trends and extrapolations of current developments, under *ceteris paribus* conditions. These do not (and cannot) reckon with, for instance, sudden geopolitical or institutional shifts in power, conflict or new coalitions that may impede or accelerate momentum, financial, economic or ecological 'booms or dooms', breakthrough technological innovations and the speed of their practical uptake, and how these interacting developments add up and affect the SDG-targets. As a consequence, prognoses in general provide little guidance as to 'what to do' and 'how to do it'; they are too vague to be of much practical use. They can be much more considered "a measure of our ignorance" (Abramovitz, quoted in The Economist, 14 April 2018, p. 66).

Also, policies related to achieving the SDGs are not excluded from what has become generally known as the 'law of unintended consequences'. Unanticipated and unintended consequences of purposeful action can be positive, but also negative or 'perverse' (Merton, 1936); they can vary in their scale of impact (local, national, regional, global) and in stakeholders affected. Such generative and dynamic complexities are shaped by – and further fed into – societal, communicative and structural complexity dimensions in unpredictable, not always overt and often whimsical ways. This makes it impossible to make credible predictions on the assumed effects of policy interventions. The sheer number of known variables is simply too large, the number of unknown variables possibly even larger.

Take for instance the issue of hunger (SDG2). The wickedness in terms of the sufficient production of nutritious food depends on the way the food system is organised. Achieving food security and improved nutrition is strongly influenced by actions on SDG8 (jobs), SDG12 (responsible consumption), and SDG15 (life on land). But the workings of these causal relationships also depend on contextual conditions, in particular climatological (SDG13) and institutional (SDG16) circumstances, in which government policies – such as protectionism or land policies – can undermine or facilitate the activities of companies or citizens, in ways that may benefit some or benefit all. Measures introduced here and now to address the problem, may lead to unforeseen consequences later and elsewhere. Some of these consequences may well be deleterious (Australian Public Service Commission, 2012), others might create unforeseen momentum and windows of opportunity.

An important dimension that would lower the level of predictive ambiguity, is clarity about what would happen if no action or intervention is taken. The more urgent an issue is, the higher the likelihood that action will be taken. That does not mean that the intervention will be adequate though; faced with immediate famines in parts of Africa, the global community came 'to the rescue' many times. The more slow-moving an issue is, even with large negative effects in the longer run, the less likely it is that societal actors will take immediate action (dimension 6). The urgency dimension presents a particular challenge in managing crisis-sensitive SDGs: SDG2 (famines), SDG3 (dying children), SDG6 (death from water contamination), SDG7 (death due to indoor air pollution), and SDG12 (irreparable damage due to waste). Taking action on these immediate disasters, however, often crowds out attention for the more structural – and pervasive in the longer term – aspects of the wicked problem. How short-term action and long-term consequences relate, is particularly difficult to predict. The tragedy of the commons and/or bystander effects tends to affect those SDGs that do not seem focused on urgent disasters in the short term.

Ad.3 Intervention ambiguity:
Most of the SDGs are interrelated. In particular the societal complexity dimensions rather than the more technical, structural complexities determine the effectiveness of the chosen intervention. Much of the differences in growth records between states, for instance, can be explained by political decisions to adopt looser or tighter regimes of state control over economic activity, and the institutional and governance arrangements that result from that (see Part I).

Wicked problems surface especially when there is a dysfunctional distribution of power among societal stakeholders that have interests (or values) that are substantially in conflict with those of others. Divergence in interests, values and power bases reflect fragmenting motions within the system, which adds considerably to all dimensions of complexity. To trigger some level of convergence and coherence again then, the most purposeful intervention to wicked problems involves *coordinated* action by a range of stakeholders, including public organisations (government agencies at the federal, state and local levels), nonprofit organisations, private businesses and individuals. This implies, however, that all parties feel engaged in the problem and challenges ahead, that all feel and take appropriate responsibility, and all are willing and able to take action by changing current practices and behaviour accordingly. A coordinated intervention is difficult to attain, because there often is no shared vision on the exact nature, scope and scale of the problem, nor a definitive, stable or well-defined solution. Under such circumstances problem-solving often ends because of pragmatic reasons – when deadlines are met, dictated by resource constraints – rather than as the result of the 'correct' solution being identified. To pursue approaches based on 'solving' or 'fixing' may cause policy makers to act on unwarranted and unsafe assumptions and create unrealistic expectations (Australian Public Service Commission, 2012). In such cases, it may be more useful to consider how such problems can be best managed, in the knowledge that wicked problems call for solution-based *approaches* and innovative *governance arrangements* and also require different monitoring and evaluation frameworks.

All nexus challenges of the SDGs present intervention challenges. One of the lessons from wicked problems theory is that the more wicked a problem is (i.e. with a high score on all scales of complexity), the more 'holistic' approaches are needed. Narrow approaches do not work and may lead to the misleading impression of 'fixing' the problem. But how to define all relevant linkages, keep track of them and improve the intervention if needed? Scientific research (partly) shows how the system is intertwined, but not necessarily how to deal with the various interests of the participating parties with different institutional logics and values and different means of power, control and resources. Neither is it clear who should initiate change efforts related to specific SDG targets – government, business, civil society organisations? – nor what kind of collaborative constellations are suited for addressing a specific issue, and under what contextual conditions. So intervention ambiguity exits on at least three levels: (1) identification of effective points of intervention; (2) *who* should initiate action; and (3) what collaborative constellation best fits the complexity of the challenges at hand.

Take for instance the food/energy/water nexus. Research on this nexus (Weitz et al, 2014) shows how specific SDG areas are interdependent (food production requires water, land and energy – involving SDGs 6, 7, 12 and 15), but also lead to trade-offs and conflicts (protecting forests vs increasing agricultural land – involving SDGs 13 and 15). By smartly combining these elements, they could also reinforce each other; water- and energy-efficiency reinforce renewable energy targets (ibid). The nexus challenge first needs to be addressed intellectually ('Do/can we know?'). But because of the nature of the wicked problem, a successful intervention starts in part by addressing the dynamic complexities of the problem through the involvement of the most important stakeholders (dimensions 9 and 10), creating smarter interventions along the way (Van Tulder and Keen, 2018). Such an approach requires boundary-spanning partnerships, known as cross-sector partnerships.

Another example relates to the inclusion nexus. Inclusion is a guiding principle of the SDGs as stated in the preamble of the goals: 'No one left behind'. Almost all SDGs end their formulation with the provision 'for all' (Ready for Change, 2016:25). The inclusion of specific vulnerable groups is regularly mentioned over many SDGs (women, children, people with disabilities, elderly, small-scale farmers, fishers, indigenous people, migrants and refugees). This also goes for the related ambition to achieve gender equality (SDG5), among countries (SDG10), in general (SDG10), in cities (SDG11) and value chains (SDG12), or as precondition for legal inclusion (SDG16). SDG9 (innovation and infrastructure) acknowledges that every job in manufacturing creates 2.2 jobs in other sectors – which suggests that these types of jobs have a greater potential to include other jobs through spill-over effects than in other sectors. How this nexus can be achieved in practice is, however, far from clear and could probably only be discovered through concrete experimentation and continuous learning and adjustment of the intervention strategy. This is not an easy task and requires different types of monitoring and evaluation techniques, also referred to as 'developmental evaluation'. One element of this technique is that the various stakeholders that work together on the SDG, agree to share knowledge but also dilemmas in order to improve the working of the partnership and the effectiveness of the intervention (Van Tulder and Keen, 2018).

Scoring SDGs

So, by taking all the ten dimensions of complexity into account it is likely that every SDG will represent different scores along each of these indicators. Every SDG's wickedness score will be influenced by the national or sectoral context in which it is measured. Each assessment will be highly context- and temporal-dependent. By intuitively counting the general scores on the basic characteristics, however, a first – rough – impression of the degree of wickedness can nevertheless be created.

ASSESSING SCALES OF WICKEDNESS, APPLYING VARIOUS TECHNIQUES

Relevant (first) scores can be created by applying three types of techniques:

- **Wisdom of the crowd and 'interrater reliability'-tests:** Even separate groups of students or relatively uninformed participants can fill out the checklist and compare results. This leads to a discussion on possible outliers and potential adjustment on the basis of informed consent. In case two or more groups come to different assessments, this might be an indication of the wickedness of the problem. This method is also known as the 'wisdom of the crowd' method. It is claimed to give better results than methods involving only experts when addressing wicked problems (Watkins and Straterus, 2017).

- **Multiple-stakeholder discussions:** The same test can be done between stakeholders around the issue. Provided they represent relevant dimensions of the issue, their complementary assessments can create a rich description of the problem (which is one of the aims of 'wicked theory', to overcome the resistance to defining a problem). A good selection of the stakeholders on the basis of societal triangulation principles (see Section 2.4) provides better results.

- **Expert assessments:** This is the usual technique applied to more complex problems. The website of the UN provides assessments of trends on each of the SDGs, made by experts and international organisations (such as the World Bank, the International Monetary Fund, the World Business Council for Sustainable Development and UN organisations). But these assessments have to be critically and prudently used. Given the relative specialisation of many scientific disciplines, it will be difficult to find expertise that covers all dimensions of a wicked problem and experts able and willing to engage in actionable research (Van Tulder, 2018).

In the academic year 2017-2018 groups of students assessed the wickedness of the SDGs as part of a number of courses, with interesting results. It is planned to make a selection of the produced posters and other papers available through the RSM website.

The dominant approach in general discussions on the SDGs is often to organise a multi-stakeholder engagement formula and try to get as many experts in the room as possible. Yet this approach – also known as 'landscaping' or 'scoping' – takes a relatively

indiscriminate approach towards the ten basic dimensions. The stakeholders present create a shared problem definition (based on a shared concern) and basically facilitate projects in which stakeholders try to collaborate.[3] The risk this approach runs is that it abstracts from the exact content of the wicked problem.

In case of immediate crises, the necessity of a response is obvious. Some authors refer to this as 'inescapable wickedity' (Jordan et al, 2014). In such instances, approaches are applied that tend to concentrate on so-called 'coalitions of the willing': those stakeholders that want to take action on the wicked problem, for which they will attempt to optimise their involvement. This can be a relevant approach, as effective stakeholder participation is an important requirement for addressing wicked problems; but a coalition of the willing might not represent the 'coalition of the *needed*', which is to represent all relevant stakeholders. Addressing the SDGs through the engagement of multiple stakeholders, thus requires a better understanding of the societal complexities of the problem: who are part of the problem and hence need to be part of the 'solutions'? So the fifth aspect of the wickedness assessment scoreboard (societal complexity, dimensions 9 and 10) deserves further elaboration. We call this 'societal triangulation'.

2.4 ADDRESSING THE SDGS: SOCIETAL TRIANGULATION

Arguably the most wicked part of the SDG challenge relates to societal complexities. Stakeholders and interest groups are needed to address the issue, yet they also seriously affect the way the issues are framed and perceived, how information is gathered and created, and how decisions are made. In Part I we already elaborated on the societal argument in terms of public good theory ('common pool' problems) and the various value propositions of societal actors that are required to deal with 'grand challenges'. The societal sources of wickedness can therefore best be linked to the three most important societal stakeholders or – in institutional terms - 'societal sectors' that surround and define issues: governments (state), firms (market), citizens (communities). Each societal sector adds a different, complementary approach and logic to an issue, because the primary responsibility, main competencies and main duties of each sector differ markedly from each other: markets provide private goods on an exclusive and for-profit basis; communities provide social goods for communities (that can be partly exclusive for others); governments create public goods (that are provided to all) on a non-profit and non-rivalrous basis. The principle of 'societal triangulation' boils down to the question of whether, and to what extent, each of the societal sectors 'have' and 'take' responsibilities, and what this entails in a world that is increasingly characterised by shifting, blurring and dissolving (institutional) boundaries.

Two perspectives need to be matched:

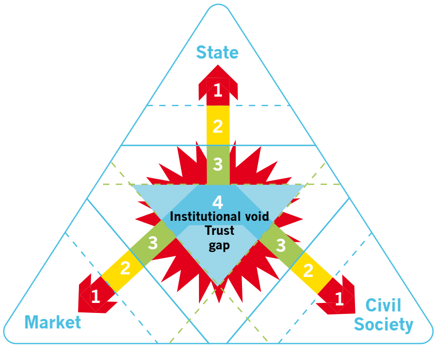
[A] *outside-in*, in which the societal nature and intensity of the problem is explored; and

[B] *inside-out*, which focuses on the various organisational approaches towards the problem.

3 For an excellent overview of all techniques available for multiple stakeholders partnering processes see: Brouwer, H., Woodhill, J., with Hemmati, M., Verhoosel, K. and Van Vugt, S. (2015) The MSP Guide. How to design and facilitate multiple-stakeholder partnerships, Wageningen University.

[A] SOCIETAL SOURCES OF WICKEDNESS: WHAT IS NEEDED?
The degree of wickedness of a problem can be defined in terms of the degree to which we can expect each societal sector to take up responsibility for the problem. The more an issue is beyond the grasp of the primary responsibility and core capabilities of each organisation, the more wicked it becomes to come to effective solution-oriented approaches. The most-wicked problems are positioned in the societal centre, where the institutional void and the trust gap is the biggest (Figure 2.2).

FIG. 2.2 *The societal intensity of wickedness*



[4+4+4] Systemic challenges:
So-called 'common pool' problems are no-one's prime responsibility yet affect everyone in the longer run. They are also referred to as 'tragedy of the commons' and can be considered the most wicked on the scale of societal complexities [scoring 50-70 in Table 2.2]. Very strong by-stander effects appear in which everybody sees the problem, but nobody is able or willing to act. There is no coalition of the willing, nor of the needed. Such systemic problems are also called 'collective action' problems, as they require the joint action of all societal sectors at the same time.

[3+3+3] Insufficient creation of positive externalities:
Some problems can be addressed by individual sectors, but run the risk of being under-provided if left to the initiating sector itself. This relates to so-called 'merit goods'. According to the original economic definition of the concept (Musgrave, 1959), a merit good presents a commodity that a society or individual should have on the basis of some concept of need, rather than on the ability and willingness to pay. Insufficient creation of merit goods can also be reframed as an insufficient provision of 'positive externalities'. A positive externality (also called 'external benefit' or 'beneficial externality') is the positive effect that an activity imposes on unrelated others. These can be produced by any sector that is willing and able to invest beyond their own direct interest, thereby creating net benefits to society. Examples of positive externalities are education, vaccination, employment effects, sufficient investments for innovative public products and services. Individual sectors can take action to fill the institutional void, but by doing so may run the risk of taking away the incentive for other sectors to contribute as well. This effect is also known as 'crowding out'. [Score: 30-50]

[2+2+2] Lacking responsibility to take care of negative externalities:
In case a sector creates negative effects for society, they also create costs for society. Examples of these so-called 'negative externalities' or 'external costs' are: pollution, citizens that do not clean up their waste (and create health issues), corrupt or inadequate governments. In principle, the sector causing the problem should take up responsibility to solve the issue itself, but very often is not able or willing to do this. Only in case other sectors are assigning responsibilities to them (Young, 2006) will they be incentivised to take up this responsibility. This can happen in case governments regulate against pollution, or citizens and civil society organisations protest against it. [Score 20-30]

[1+1+1] Sectoral failure:
Most sectors falter in their capability to produce sufficient goods and values, even when this is their primary responsibility. Market failure exists in case firms do not supply goods that people want or can afford; governance failure exists in case governments do not create the laws and provide sufficient regulation to make societies safe and prosperous; civic failure exists in case communities do not organise sufficient mutual support and trust to make them secure and stable. [Score 10-20]

[B] SOCIETAL SOURCES OF SUCCESS: WHAT GETS ADOPTED?

Complementary roles
The various societal sources of wickedness show that it is difficult for each societal sector to take up responsibility for any issue that lies beyond their primary role and capacities, even when these sectors have a (longer term) interest in doing so. Well-functioning societies are 'balanced' societies in which each societal sector plays constructive and complementary roles (Table 2.3). The better each sector functions in all its roles at all responsibility levels, the easier it becomes to address wicked problems.

Well-functioning sectors take sufficient care of the primary roles or fiduciary duties for which they were created: companies effectively compete; governments regulate through laws (mandating); and civil society creates vibrant communities through mutual support. Secondary roles are those roles that are in the sphere of influence of the sector, but require the involvement of other parties to execute them: companies can outsource, governments can facilitate (for instance through subsidies), and civil societies can advocate (i.e. convince others to do it differently). Tertiary roles relate to those areas that are only indirectly in the sphere of influence: in case companies delegate activities to their corporate foundation, they are engaging in community activities; in case civil society organisations adopt a 'service-orientation', they are entering the market sphere; governments can endorse activities of companies or others, but will find it difficult to do this in a non-discriminatory manner (which is required in case of a public good). The least clear is the exact role that sectors can play in addressing collective action issues: some form of partnership is needed, but what this entails in terms of collaborative formations, collaborative actions and attribution of joint responsibilities is highly context- and issue-dependent.

TABLE 2.3 *Complementary roles of societal sectors*

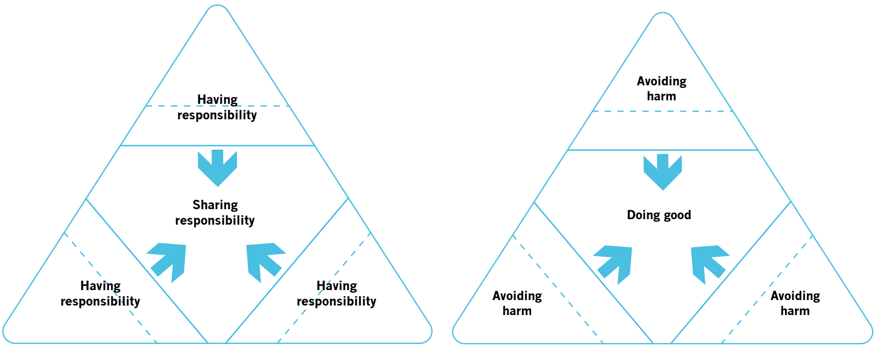
Roles and intervention levels	Markets: Companies	State: governments	Civil society: communities
1. Primary role (fiduciary duty to create value)	Competing: efficiency, innovation and scaling	Mandating: regulation through laws	Supporting: mutual support through communities
2. Secondary role (within sphere of influence)	Outsourcing (upstream and downstream)	Facilitating: providing subsidies and other means of (financial) support to sectors	Advocacy (within and towards others sectors)
3. Tertiary role (indirect influence)	Delegating (through foundation)	Endorsing and sponsoring	Service-orientation and sponsoring
4. Addressing collective action issues	Partnering	Partnering	Partnering

Source: Based on Van Tulder with Van der Zwart, 2006

Taking and having responsibility

In the organisation of all these roles, problems can appear. Even in well-functioning societies the adequate provision of ‘common pool’ goods presents a great and continuous challenge. In case sectors falter in addressing some of the sources of failure of and within their own sector, the already-great challenge to adequately provide common pool goods gets reinforced. Within the realm of societal complexity, we can define the degree of wickedness as the extent to which sectors ‘have’ and ‘take’ individual or collective responsibilities (Figure 2.3).

FIG. 2.3 *Avoiding harm versus doing good as issues of having and sharing responsibility*



Organisations can be held responsible for the issues that they have direct influence over. Most of the thinking in this realm is based on ethical theory (Rawls, 1967) and the normative practice of many professions – such as doctors and lawyers – aimed at ‘avoid doing harm’. Companies in this primary responsibility sphere share a strong focus on ‘compliance’ with regulation (Van Tulder with van der Zwart, 2006): not doing more, but not doing less either. Yet the more wicked a problem is, the less the issue is regulated,

and the less 'avoid doing harm' is a sufficient response to the issues at hand. Increased levels of wickedness require that the societal sectors take on responsibilities beyond their primary influence and focus more on 'doing good'. Activities that aim to avoid harm are expected of any good citizen (Davis, 1973; Lin-Hi & Müller, 2013). In contrast, actions that are focused on doing good very often exceed social expectations. Actions that are focused on doing good beyond their own societal sector engage in an even more difficult organisational and ethical pathway, one that requires collective action (ibid).

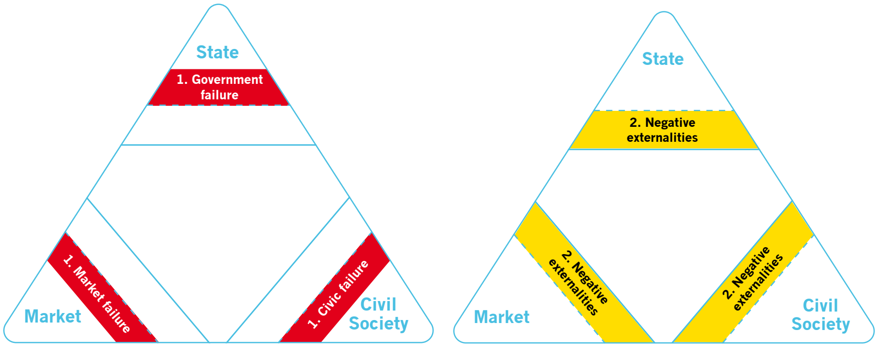
Avoiding negative impacts is generally considered to be a stronger norm than actively creating positive change. In ethical theory, actors that do not hold responsibility for an issue but take responsibility, act according to the so-called 'categorical imperative' (as 'good citizens', for instance). From a somewhat skeptical perspective they can also be considered 'suckers' (cf. Streeten, 2001), as their reason to engage in positive action crowds out incentives for others to take up responsibility for issues that they should consider (partly) of their own making. For instance, a government that subsidises the production of medicine while the industry could have invested in it themselves, may also take away the incentive to innovate and help the next generation of sick people.

The arena of collective action represents the natural space for tripartite partnering, where none of the societal actors hold primary responsibility, but can nevertheless take responsibility as long as others are holding theirs up. In terms of ethical theory, this position requires so-called 'conditional morality', which refers to forms of negotiation through which a common good can be produced in a reciprocal manner.

2.5 LEVELS OF INTERVENTION

Let's consider each of the layers of sectoral interventions – as depicted by Figures 2.4 and 2.5 – in a bit more detail.

FIG. 2.4 *Avoiding harm and having responsibility*



Level 1 Interventions - Addressing failure:

The first layer of societal complexity finds its source in the sectors themselves. This element does not necessarily refer to illegal activities of organisations, but applies to more structural deficiencies in the operation of each sector, resulting in failure to efficiently deliver its primary value to society. This dimension is also referred to as the 'fiduciary duty' of an organisation in a narrow sense and relates to the duty of the organisation to its primary stakeholders (customers, members, employees), following its primary role (Table 2.3). Governments can fail due to overly bureaucratic procedures, unaccountable governance and concentration of political power. Corrupt governments limit the ability of the state to develop proper laws. Market failure occurs for instance in case of a concentration of wealth, monopoly positions (creating information asymmetry), credit rationing, the passing of costs to others and shortage in the production of relevant private goods. Market failure also appears in case the market does not provide an incentive to innovate and improve products and processes. Civic failure appears when special interest groups prevail in defining the 'common good', when communities are not efficient and effective in creating mutual support, or when communities are not effective in creating civil society organisations (CSOs) around a common theme due to corruption, paternalism, amateurism or otherwise. Table 2.4 lists a number of related sources of failure for each sector.

TABLE 2.4 *Selected societal sources of failure*

State	Market	Civil Society
Nepotism Corruption Excessive bureaucracy Regulatory capture Authoritarian rule Inadequate separation of powers Kleptocracy Military aggression Accountability Power concentration	Monopoly Bonus culture Corruption Insider trading Rogue trading Non-marketable diseases Intellectual property rights and innovation Insufficient scaling and efficiency Sexual harassment Privacy violations Wealth concentration	Inadequate provision of club goods (mutual support) Amateurism Corruption Paternalism Power-abusing patriarch Privacy Diversity Human rights violations Lack of trust

If problems of failure within a sector are not addressed adequately, they affect other parts of society. Some of them are regulated, but not all. And even in case regulation exists, it is not necessarily (effectively) enforced. Addressing intra-sectoral failure first and foremost involves coordinated efforts among actors in the same sector, so as to restore public trust. The lack of ability or willingness of each sector to live up to its fiduciary duty has serious consequences for the level of public trust bestowed on these sectors. 'Low-trust' societies have greater difficulty in creating social contracts than higher-trust societies. The 2014 Edelman Trust Barometer showed that only 25% of respondents around the world trust business leaders to address (sustainability) issues correctly. An even lower percentage trusts them to tell the truth and make ethical and moral decisions. Only one sector scored lower: the public sector with 6% trust levels. Trust in civil society organisations is only slightly higher than that of business. So, institutional voids that result from sectoral failures are linked to sizable 'trust gaps'. As only partnerships between the sectors show a higher degree of trust (and expectations), this makes them an interesting – and arguably necessary – vehicle for restoring trust.

Level 2 Interventions - Taking responsibility for negative externalities:
The second layer of societal complexity is more difficult to address. It relates to the unwillingness or inability of a sector to extend its influence beyond its narrow fiduciary duty to include its secondary stakeholders. This applies, for instance, to companies that pollute, overuse or extract, but do not pay for the costs incurred on the community surrounding the sites. It also applies to consumers not willing to pay a fair price for their groceries, one that better reflects the true costs of production; for instance related to fair wages and safe working conditions for workers further down the production chain, internalisation and inclusion of the environmental costs of production, or improved levels of animal welfare. Governments that do not develop effective regulation create negative externalities because they are not able to protect their citizens from the arisal of 'public bads. Communities can create negative externalities for other communities through, for instance, noise, pollution or criminality. Negative externalities are often difficult to attribute to the action of individual actors, which makes them difficult to tackle. Hence, actors who want to take up more responsibility for addressing negative externalities often need to complement their own action and capabilities with those of actors from other societal sectors. However, the more that actors operate on a 'conditional basis' – 'I will if you will'– the more their strategy becomes reactive and the more they can dodge their own responsibility.

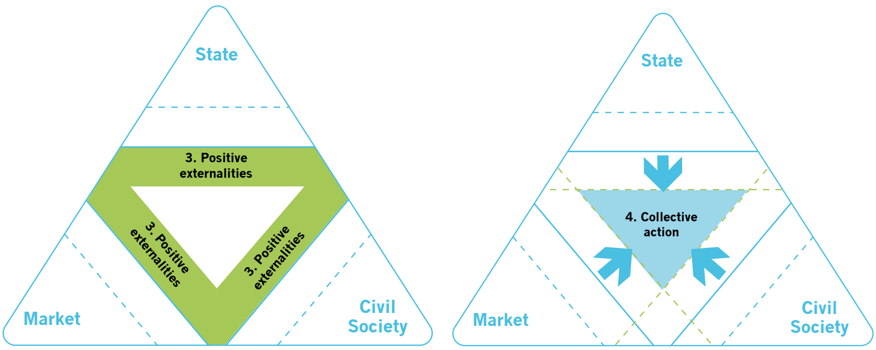
TABLE 2.5 *Selected sources of negative externalities*

State	Market	Civil Society
Clientism: government operated as company (citizens as customers) Insufficient provision of public goods Lacking separation of powers Ponzi schemes Insufficient safety provision Wars Torture Protectionism Subsidy addiction	Collusion and cartels Created market failure on the basis of fear (bottled water) Pollution Addictions (gaming, tobacco, alcohol, fast food and drinks; social media addiction) Incompatible products Built-in deterioration Dumping Unmet private needs Human rights violations Child labour	Inadequate mutual support Racism and other sources of exclusion Mafia Pyramid games Crime gangs Slavery Torture Child labour Gated communities Gentrification

Negative externalities can appear as the unintended side-effects of a product or service, yet can also be intentionally *created*. The mafia and crime gangs seem to be extremely capable in organising mutual support within their own community, but simultaneously create immense negative costs on society. Famous examples of equally serious externalities relate to created addictions as a 'calculated side-effect' of the goods and services produced. Tobacco, gaming and social media industries are known for adding features to their products that are intended to get 'customers' hooked on their products. By doing so, such businesses not only create a product that has negative and disguised attributes for their consumers (yet positive effects for their shareholders because of high revenues), but also negative externalities for the families and communities around these people, with societal costs in the form of reduced productivity, health care costs and the like. Forms of addiction can appear anywhere in society, even at the level of organisations, branches and entire economies. Citizens, companies and non-profit organisations can all

suffer from a ‘subsidy addiction’ which may negatively affect their capacity to stand on their own feet. Entire economies have boomed and then busted, for instance because of addiction to subsidised food or oil prizes, foreign institutional loans, or over-reliance on resource richness that clouded over the real need to diversify economic activities.

FIG. 2.5 *Doing good and sharing responsibility*



Level 3 Interventions - Creating positive externalities:
Firms can extend their positive influence on society by targeting latent societal demands, desires and needs, for instance by providing access to education and health care for workers and their families in their production chains. Civil society organisations can take up responsibilities beyond their own community or club, which may take the shape of ‘social enterprises’ that address societal voids and unmet needs with innovative business models. This influence may also take the form of volunteer work, or engagement in (solidarity) actions that, for instance, call for universal application of basic human rights, the upholding of the climate agreements by states, the restoration of coral reefs or the revitalisation of degraded lands. For states, extending their responsibility to trigger positive externalities involves engaging in ‘facilitating’ or ‘endorsing’ activities. This can be done through subsidies or taxation rate differentials or other incentivising measures by which society can be influenced in other ways than through laws (mandating).

The complexities linked to these ‘external benefit’ problems are often related to the (in)action of other sectors in taking up responsibility. Actors in one sector may feel an urgent need to fill in (part of the) responsibilities that other sectors have left unattended. Businesses and civil society organisations for instance, have been taking on governance duties to address societal ills, because of regulatory voids left by retreating or failing states. And the risk of crowding out primary responsibilities always lies in wait. When citizens or governments clean up the waste produced by companies, they provide a perverse incentive for those companies not to live up to responsibilities related to their fiduciary duty. One way of approaching such boundary-spanning problems, then, is to form partnerships or coalitions between the two sectors involved, in order to prevent crowding out (see below).

TABLE 2.6 *Complementary sources of positive externalities*

State	Market	Civil Society
Subsidies Research into new technologies Endorsing Education Public health provisions Immunisation campaigns Restoring historical buildings Democracy and participation Public libraries Minimum wage laws National parks	Sponsoring Investing in needs rather than markets Innovation in new technologies Spill-over effects of investments (in employment) Sanitation Public building restoration (through sponsoring) Business-community involvement	Advocacy for public and common goods provision International solidarity Greening of the neighbourhood Vigilantes Volunteering Taking responsibility for community care Historic building restoration (by volunteers)

Level 4 Interventions - Stimulating collective action and joint risk-taking:
The final layer of societal complexity is the most difficult to address. It represents that part of the societal set-up that requires the participation of all societal actors, who however may not feel a responsibility, and may primarily see the risks of getting involved. This is the case for almost all climate issues, and the plastic soup in the middle of our oceans where no single government rules. It is also the case for most economic growth and sustainability topics where common and collective action beyond individual responsibilities are needed to establish a minimum level of social, economic and ecological governance. Collective action should provide 'common goods' that go beyond private, public or social goods. Examples are pension schemes, unemployment programmes, or inclusive and green growth policies.

In the areas of common goods creation, risk-taking requires risk-sharing. The dimensions and degrees of complexities involved in common goods creation may induce involved parties to refuse to take action, because they cannot oversee all dimensions and consequences of the problem and may find the risk too high to address it on their own. As a result, they choose to 'wait-and-see', which creates inertia or a deadlock as to which party – and at what level of society – will stick out its head and initiate action first. It is not easy to define a right approach to 'common good' issues; therefore it is also not easy to develop straightforward strategies. Certainly, this cannot be done by one party alone; it has to be in partnership with other societal actors. Collective action problems are often labelled 'tragedy of the commons'; they require innovative governance and partnering arrangements (see Part I). Tragedy of the commons problems such as climate change that not only involve and affect all societal sectors, but also all levels of society, are characterised as 'super-wicked' (Levin et al, 2012).

TABLE 2.7 *Objectives of collective action*

State	Market	Civil Society
Joint poverty programmes; collective pensions; competitiveness; savings; investment regulation; inflation; trade policies; equal income distribution; wage distribution; unemployment programs; joint infrastructure programmes; trust gaps; public health and education provision; productivity coalitions; tripartite institutions.		

Matching approaches to wickedness

Societal triangulation makes it possible to gain a better understanding of the sources of wickedness and the kind of approaches required. As wicked problems are characterised by high levels of societal complexity, they are not easy to address and often require collective action. Table 2.8 (Scoreboard #2) explicates what, in principle, the intervention logic of these actions is. With Scoreboard #2 we attempt to match a number of dimensions that create the most important societal dimensions of wickedness: (1) ‘having’ and ‘taking’ responsibilities; (2) ‘avoiding harm’ and ‘doing good’; (3) addressing failure in core activities (primary responsibilities); (4) dealing with negative externalities and creating positive externalities; (5) the attitude that a combination of these attributes represents (inactive – proactive); and (6) the kind of collaborative or partnership approach that is required to address these issues.

TABLE 2.8 *Scoreboard #2: Define an Intervention Logic: How to match having and taking responsibilities*

Needed? (degree of wickedness)	**LEVEL 1: Address failure**	**LEVEL 2: Deal with negative externalities**	**LEVEL 3: Create positive externalities**	**LEVEL 4: Engage in collective action**
Having responsibility	High	<------------------------	------------------------>	Low
		Taking responsibility for addressing a problem?		
Description: Whether organisations:	.. take up their primary role	.. deal with negative externalities	.. try to create positive externalities	.. engage in collective action to solve systemic problem
A State:	Laws and regulation (mandating) poor good <-----------------------> 1 2 3 4 5	Facilitating: subsidies and regulation against public 'bads' poor good <-----------------------> 1 2 3 4 5	Endorsing and facilitating other organisations to create positive effects poor good <-----------------------> 1 2 3 4 5	Trilateral partnering for systems change poor good <-----------------------> 1 2 3 4 5
B Market:	Competitive production of goods and services poor good <-----------------------> 1 2 3 4 5	Minimise negative effects (e.g. pollution) poor good <-----------------------> 1 2 3 4 5	Optimise positive effects: in products and value chains poor good <-----------------------> 1 2 3 4 5	Fix system together with whole sector and communities poor good <-----------------------> 1 2 3 4 5
C. Communities:	Creating social value through mutual support poor good <-----------------------> 1 2 3 4 5	Advocacy within, towards other sectors poor good <-----------------------> 1 2 3 4 5	Service delivery to create positive effects poor good <-----------------------> 1 2 3 4 5	Trilateral partnering to create systems change poor good <-----------------------> 1 2 3 4 5
Average attitude:	Inactive high low <-----------------------> 1 2 3 4 5	Reactive high low <-----------------------> 1 2 3 4 5	Active low high <-----------------------> 1 2 3 4 5	Proactive low high <-----------------------> 1 2 3 4 5
Matching need?	no yes <-----------------------> 1 2 3 4 5	no yes <-----------------------> 1 2 3 4 5	no yes <-----------------------> 1 2 3 4 5	no yes <-----------------------> 1 2 3 4 5
Partnership approach:	Intra-organisational/ sectoral	Intra/bisectoral partnerships	Bi/tripartite partnerships	Tripartite partnerships

HOW TO APPLY SCOREBOARD #2?

- **1. Starter score:** each of the three sectors score their performance for the issue at hand at each of the four intervention levels. We use a five-point Likert scale that should make it possible to come to an approximate assessment of whether sectors have a very poor to a very good performance on that item. Make sure that you cover the issue within a relatively well defined 'ecosystem' – usually a country, a region or a value chain. Then define the issue either on a general level or on a more specific level. So, for instance on the topic of poverty (SDG1): In many developed countries, governments do not only have good laws that they enforce (level 1), but also provide subsidy programmes to address the negative effects of the system (level 2), support voluntary organisations that help unemployed or disadvantaged people to get training and mutual support (level 3), while also creating an institutional set-up in which social 'partners' negotiate on a regular basis to make sure issues that influence the longer term prospects of poverty (minimum wages, job training and the like) are organised collectively (level 4). This assessment can be made on the basis of expert opinions, stakeholder engagements or even on the basis of shared intuition. Remember that the degree of wickedness of a problem can also be due to perceptions. The basis of the assessment, however, should always be made clear (and preferably have some form of inter-rater reliability).

- **2. Assess the outcome:** at each of the rows. Very often this exercise will create a 'mixed' score on many accounts. In case all three sectors score poorly on level 1, we can also expect them to score poor on most other levels. But we have also found other patterns. Companies with a poor score at levels 1 and 2, for instance due to extremely polluting activities, have an incentive to use their philanthropy activities to compensate for the negative externalities they create as a way of influencing communities and governments to take over their primary responsibility. The chance that this will create a lasting effect, however, is not very likely. Somewhere along the line, failure will have to be addressed.

- **3. Define the average attitude:** consider the columns. If actors in that sector all score consistently poor on level 1, they can be considered very 'inactive' in addressing failure within their own sector. The same applies to other sectors in level 2: in case government, communities and companies score poorly on dealing with the negative externalities, their average attitude tends to be reactive. But there is a tipping point between level 2 and level 3 interventions, in terms of the attitude of organisations. At level 2 sectors are still in the 'avoiding harm' mood – preventing bad things from happening; at level 3, sectors are switching to optimising 'doing good' activities. So the assessment changes fundamentally: a poor score on all accounts then accumulates in a low score on the 'active' attitude scale; the same applies to level 4 interventions.

- **4. Matching need:** now you have the best possible assessment of the societal complexity of an issue or an SDG. You should then be able to define the 'gaps' in the societal set-up around this issue. In case the gap is big – i.e. because of many different positions and responsibilities combined with lacking action – at each column, considerable action should be taken. Take for instance level 2 and relate it to SDG14 (life below water). In case the scores are all 'poor', the general attitude of governments, communities and companies are consequently inactive or – at most – reactive. This implies that nobody is actually taking active responsibility for this problem, whilst it is not difficult to argue that this will seriously intensify the issue. The need to match responsibility – 'having' and 'taking' – also rises immensely as a consequence. Effective interventions under such circumstances might be needed at the level of collective action or even with foreign support, because the individual societal actors are not able or willing (or both) to deal with this issue. They have become bystanders of a problem of their own making. Other matching scores might be less dramatic and easier to attribute in terms of potential intervention. Very often, this boils down to the set-up of a particular partnering configuration (Van Tulder and Pfisterer, 2014; Van Tulder and Keen, 2018).

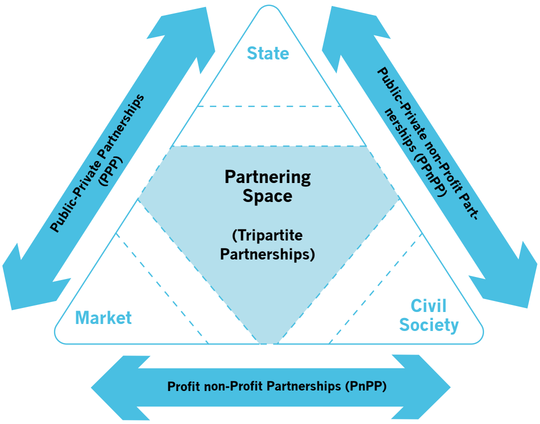
- **5. Partnering approach:** The nature of the problem in terms of level of intervention needed and the societal sectors involved together determine the partnering configuration that is most likely required. In case of failure at level 1, in particular intra-sectoral partnerships are eligible. In case of exceeding wage inequality in a particular sector (related to SDG10), for instance, the preferred approach would be that the sector solves that issue itself, so that companies in the same sector cannot engage in a 'race to the bottom' of ever-decreasing wages from which, eventually, everybody will suffer. In case of prevailing negative externalities (level 2), combined intra-bi-sectoral partnerships are shown to have good results. In particular when the trailing sector (with the biggest externalities) can align with the well-functioning sector, the partnership can lead to effective approaches that create (innovative) solutions to the problem. The more the matching challenge lies at the active or proactive intervention level, the more complex partnerships that involve all societal sectors are required. So, there is a clear partnering challenge in effectively addressing wicked problems – and in creating wicked opportunities. The societal triangle offers room for the delineation of a 'partnering space'.

Creating a partnering space

In the partnering space (Figure 2.6), societal actors can take up and share responsibility for societal issues. In social philosophy this mechanism is also known as the 'social connection model' of responsibility (Young, 2006), which states that "all agents who contribute to the structural processes that produce injustice have responsibilities to work to remedy these injustices" (ibid: 103). At the first two levels of wickedness, such 'injustice' is relatively easy to define and attribute to those liable for causing it, but at levels 3 and 4 this gets much more difficult. The question then becomes on what basis representatives of sectors are not only taking responsibilities themselves, but also

assigning it to others. The partnering space can consequently be considered an arena in which parties with different and complementary logics, values and interests get together.

FIG. 2.6 *Four ways to fill the partnering space*



Studies on the dynamics of cross-sector partnerships for development have adopted a variety of perspectives of the nature of the partnering space as the arena in which the actual process of partnering takes place. The concept of partnering space can be considered in more idealistic or more realistic terms.

In more *idealistic* terms, the partnering space represents:

- An area for *collaborative solutions* to wicked problems (Hart & Sharma, 2004) in which new sources of trust can be built up. Trust-building will initially be relatively modest because of the inherent differences between the sectors, but in later stages can develop into deeper trust relations (Austin, 2000). The greater the trust, the lower the transaction costs. The arena can also be considered a 'value creation spectrum' (Austin & Seitanidi, 2012) in which 'collaborative value' or 'shared value' (Kramer & Porter, 2006) can be created.
- An *area of growing interdependencies* as the result of globalisation and the related ideologies of privatisation, deregulation, liberalisation and decentralisation (Gaspar et al., 2007: 288).
- A new *institutional space* in which the common good can be advanced. New institutional arrangements experimented with in the partnering space can distribute values and resources, or can act as "sources of power to the extent that they are effective, and arenas for power-based conflicts on the distribution of values and resources" (ibid: 298).
- A means to *bridge the 'institutional divide*', particularly in case of the co-existence of potentially conflicting institutions, by including multiple partners from multiple sectors (Rivera-Santos et al., 2012).
- A *novel approach to governance and decision-making* needed to address the institutional void that appears in the middle of society. The governance approach that is searched for is also referred to as inclusive-, meta-, transition- or hybrid governance

– but with recurring problems of legitimacy and accountability (cf. Utting & Zammit, 2009; Glasbergen, 2011).

- A '*discursive space*' in which actors collaborate to frame and reframe issues that can be considered of mutual interest. The move into the partnering space forces actors to move out of their existing frames of reference, interest-based positions or comfort zones (mindsets) or homogenous institutional backgrounds. The power of framing by each actor is brought into the partnership and can lead to a constructive discourse.

In more *realistic* terms, the partnering space represents:

- A contested *political arena*. Partnerships for sustainable development have been negotiated, endorsed and implemented in a contested political arena (Pattberg et al., 2012: 21).
- A '*bargaining arena*' (Van Tulder with Van der Zwart, 2006) in which conflict and power struggles are exercised (Gray, 2007).
- A *network*, multiple layers of relational structures and the positions therein of actors. "Understanding differences in the structural position of partners is to understand power" (Ellersiek, 2011:36).
- A *new opportunity* for the private sector to "exercise power and influence over domains that were the preserve of public-sector organisations" (Buse & Harmer, 2004:50), or as an action primarily for self-interest and secondarily for social good.
- An *idealised tool and discourse*, initiated in particular by multilateral agencies, that diverts "attention from asymmetrical power relations, the struggle for hegemony, participation deficits and trade-off between diverging partnership goals to questions of effectiveness and efficiency" (Bäckstrand, 2012:169). Partnerships can also crowd out existing roles, functions and responsibilities of actors. Pattberg et al (2012) argue that international development partnerships are often active in issue areas that "are already densely populated by international law and agreements" (ibid, 2012: 240).

It is easy to consider the idealist perspective on partnerships as 'naïve', or the realist perspective as overly skeptical. Both perspectives can and should be considered complementary in case one aims at creating a 'balanced', 'inclusive' and 'sustainable' society – which in itself is based on a process laden with trade-offs and conflicts.

The matching challenge

In Part I we saw that the institutional void is detrimental to inclusive development if this void is not filled by positive and collaborative action. The institutional space between the sectors can be filled by hybrid organisational forms, but can also be filled by cross-sector partnerships. The latter approach is generally expected to be more effective, because part of the problem of the void starts with the failure of each sector to build up its strength (and organise its fiduciary duty well). Hybrid organisations tend to weaken the position of these individual sectors, while cross-sector partnerships – if organised well – should strengthen them and enable society to profit from the full potential of so-called 'collaborative advantages' (Huxham and Vangen, 2004; Van Tulder and Keen, 2018).

Partnering space consists of four different types of partnering configurations that create different types of 'organisational fit' to address wicked problems (Figure 2.6). The classical Public-Private Partnership (PPPs) addresses the underinvestment in public goods, such as roads, infrastructure, water facilities and telecommunication. Public Private non-Profit Partnerships (PPnPPs) aim at increasing the effectiveness of public policies and

adequate provision of public goods. Profit non-Profit Partnerships (PnPPs) address the under-provision of relevant public good/values, such as private health, empowerment and famine. Finally, tripartite Partnerships (TPPs) address the institutional voids emerging from weak governance structures on all sides of society.

Table 2.9 lists some examples of partnerships that have been initiated around the world to deal with the challenges of different levels of wickedness. The partnership can be initiated by any sector. The nature of the partnership is strongly influenced by the initiator, and the degree to which the partnership configuration represents equal, voluntary and needed partners. This issue will be further elaborated from the perspective of the firm in Part III.

TABLE 2.9 *Examples of partnership configurations at four levels of intervention*

		LEVEL 1 Failure addressing partnerships	LEVEL 2 AND 3 Externalities addressing partnerships	LEVEL 4 Collective Action partnerships
Dominant configuration of partnership		Intra-sectoral	Bipartite cross sector	Tripartite cross sector
Prime Initiator of partnership	Markets (firms) Private-for- profit	Bottom of the Pyramid; Access to medicine; product development partnerships (PdPs)	Roundtable on sustainable palm oil/soy; marine stewardship council; food and nutrition security	Climate coalitions; fair income distribution coalitions (OECD)
	State (governments) Public-non-profit	Donor coordination partnerships (GPEDC); fair taxation coalitions; NATO and other military alliances	Water operator partnerships; education partnerships; health; security partnerships	Water and sanitation; access to energy; access to justice; biodiversity partnerships
	Civil society ('NGOs') Private-non-profit	Obesity partnerships; human rights coalitions; urban development partnerships	Advocacy partnerships; food security; gender partnerships; trade union rights	Poverty, economic growth coalitions; public health partnerships

Source: Based on Van Tulder and Keen, 2018

2.6 THE SPECIFIC SDG ELABORATION

The SDG agenda urges agents from all spheres in society, including governments, the private sector, and civil-society organisations, to contribute to their achievement. Each of the sectors brings complementary capabilities for contributing to sustainable development challenges (Selsky & Parker, 2005; Brinkerhof & Brinkerhoff, 2011). Yet not all actors are equally well-positioned to contribute to all types of sustainable development themes. For example, certain themes demand governmental action while others primarily need the private sector to provide solutions (Van Tulder with van der Zwart, 2006). The 17 SDGs, and their underlying (169) sub-targets in particular, are highly diverse. As a result, the degree of control and responsibilities that different agents have over implementation, varies greatly across the targets. At the same time, some SDG targets are so complex that they can only be realised through the combined efforts of governments, companies, and civil-society organisations.

The SDG agenda has also been the result of a relatively undirected multiple-stakeholder engagement process, based on 'coalitions of the willing' – i.e. those agents who were able and willing to participate in often-lengthy negotiation and consultation processes. So not all interested parties were represented, and certainly not all relevant information was available. The results of this global agenda-setting exercise thus have to be critically followed, in particular at the level of concrete implementations by individual organisations. This refers to the 'how' question that will be covered for corporations in Part III.

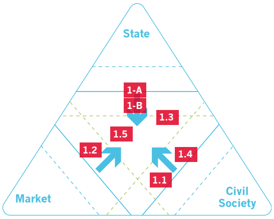
At the level of the more concrete policy and analytical framework that was developed by the UN, we can already see how the SDG agenda plays out in general. The societal triangulation technique that we introduced in the foregoing sections can help define how the landscape of topics and responsibilities is defined according to the SDGs. The formulation of the sub-targets reveals to a large extent whether the target is aimed at addressing various societal sources of wickedness, along the two dimensions related to: (1) the four levels of intervention that are required to deal with the issue (failure, negative externalities, positive externalities or common pool/collective action problems); and (2) the main societal sector that is either affected or should take responsibility for addressing the issue (state, market, civil society or a combination).

Table 2.10 shows the first result of this largely exploratory exercise. For each SDG, the UN on average specified ten sub-targets. These represent a more concrete 'what' category, and can be positioned in the societal triangle to match the targeted societal sectors (the 'who' question) as defined by the UN. The UN also defined a number of collaborative targets, which consequently have to be positioned between the societal spheres. These positions are often defined in the UN wording as requiring collaboration and partnering.

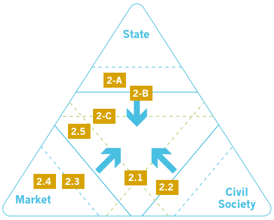
TABLE 2.10 *Matching What and Who according to the UN method*

What?	Who? (targeted sectors)

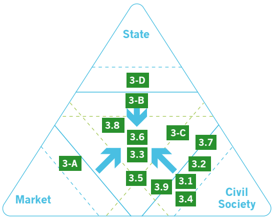
1.1 Eradicate extreme poverty
1.2 Reduce poverty by at least 50%
1.3 Implement social protection systems
1.4 Equal rights to ownership, basic services, technology and resources
1.5 Build resilience to environmental, economic and social disasters
1-A Mobilise resources to implement policies to end poverty
1-B Create pro-poor and gender-sensitive frameworks



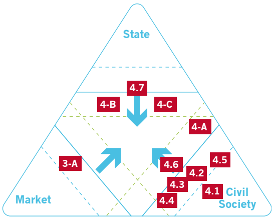
2.1 Universal access to safe and nutritious food
2.2 End all forms of malnutrition
2.3 Double the productivity and incomes of small-scale food producers
2.4 Sustainable food production and resilient agricultural practices
2.5 Maintain the genetic diversity in food production
2-A Invest in rural infrastructure, agricultural research, technology and gene banks
2-B Prevent agricultural trade restrictions, market distortions and export subsidies
2-C Ensure stable food commodity markets and timely access to information



3.1 Reduce maternal mortality
3.2 End all preventable deaths under 5 years of age
3.3 Fight communicable diseases
3.4 Reduce mortality from non-communicable diseases; promote mental health
3.5 Prevent and treat substance abuse
3.6 Reduce road injuries and deaths
3.7 Universal access to sexual and reproductive care, family planning & education
3.8 Achieve universal health coverage
3.9 Reduce illnesses and death from hazardous chemical and pollution
3-A Implement the WHO framework convention on tobacco control
3-B Support research, development, universal access to affordable vaccines and medicines
3-C Increase health financing and support healthy workforce in developing countries
3-D Improve early warning systems for global health risks

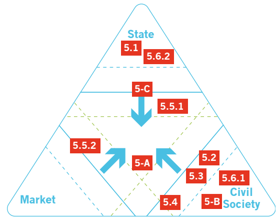


4.1 Free primary and secondary education
4.2 Equal access to quality pre-primary education
4.3 Equal access to affordable technical, vocational and higher education
4.4 Increase the number of people with relevant skills for financial success
4.5 Eliminate all discrimination in education
4.6 Universal literacy and numeracy
4.7 Education for sustainable development and global citizenship
4-A Build and upgrade inclusive and safe schools
4-B Expand higher education scholarships for developing countries
4-C Increase the supply of qualified teachers in developing countries

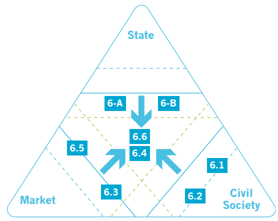


What? | **Who?** (targeted sectors)

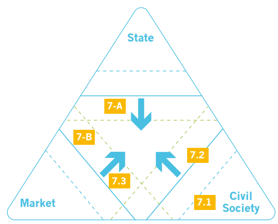
5.1 End discrimination against women and girls
5.2 End all violence against and exploitation of women and girls
5.3 Eliminate forced marriages and genital mutilation
5.4 Value unpaid care and promote shared domestic responsibilities
5.5 Ensure full participation in leadership and decision-making
5.6 Universal access to reproductive health and rights
5-A Equal rights to economic resources, property ownership and financial services
5-B Promote empowerment of women through technology
5-C Adopt and strengthen policies and enforceable legislation for gender equality



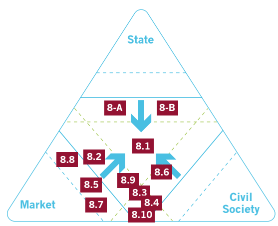
6.1 Safe and affordable drinking water
6.2 End open defecation and provide access to sanitation and hygiene
6.3 Improve water quality, wastewater treatment and safe reuse
6.4 Increase water-use efficiency and ensure fresh water supplies
6.5 Implement integrated water resources management
6.6 Protect and restore water-related ecosystems
6-A Expand water and sanitation support to developing countries
6-B Support local engagement in water and sanitation management



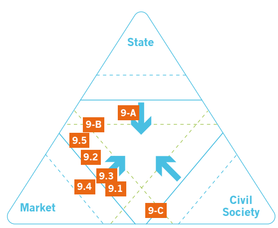
7.1 Universal access to modern energy
7.2 Increase global percentage of renewable energy
7.3 Double the improvement in energy efficiency
7-A Promote access to research, technology and investments in clean energy
7-B Expand and upgrade energy services for developing countries



8.1 Sustainable economic growth
8.2 Diversify, innovate and upgrade for economic productivity
8.3 Promote policies to support job creation and growing enterprises
8.4 Improve resource efficiency in consumption and production
8.5 Full employment and decent work with equal pay
8.6 Promote youth employment, education and training
8.7 End modern slavery, trafficking and child labour
8.8 Protect labour rights and promote safe working environments
8.9 Promote beneficial and sustainable tourism
8.10 Universal access to banking, insurance and financial services
8-A Increase aid for trade support
8-B Develop a global youth employment strategy

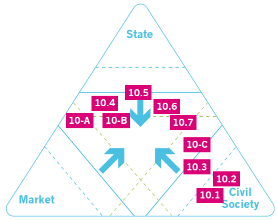


9.1 Develop sustainable, resilient and inclusive infrastructures
9.2 Promote inclusive and sustainable industrialisation
9.3 Increase access to financial services and markets
9.4 Upgrade all industries and infrastructures for sustainability
9.5 Enhance research and upgrade industrial technologies
9-A Facilitate sustainable infrastructure development for developing countries
9-B Support domestic technology development and industrial diversification
9-C Universal access to information and communications technology

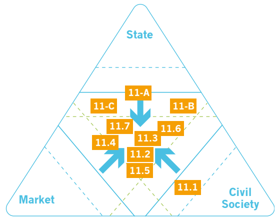


What?	Who? (targeted sectors)

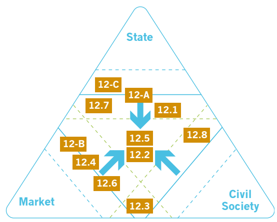
10.1 Reduce income inequalities
10.2 Promote universal social, economic and political inclusion
10.3 Ensure equal opportunities and end discrimination
10.4 Adopt fiscal and social policies that promote equality
10.5 Improved regulation of global financial markets and institutions
10.6 Enhanced representation for developing countries in financial situations
10.7 Responsible and well-managed migration policies
10-A Special and differential treatment for developing countries
10-B Encourage development assistance and investment in least developed countries
10-C Reduce transaction costs for migrant remittances



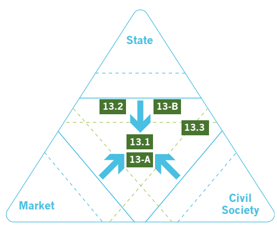
11.1 Safe and affordable housing
11.2 Affordable and sustainable transport systems
11.3 Inclusive and sustainable urbanisation
11.4 Protect the world's cultural and natural heritage
11.5 Reduce the adverse effects of natural disasters
11.6 Reduce the environmental impact of cities
11.7 Provide access to safe and inclusive green and public spaces
11-A Strong national and regional development planning
11-B Implement policies for inclusion, resource efficiency and disaster risk reduction
11-C Support least developed countries in sustainable and resilient building



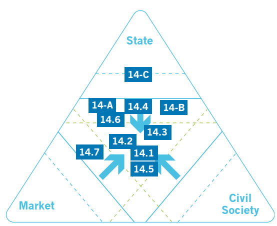
12.1 Implement the 10-year sustainable consumption and oduction framework
12.2 Sustainable management and use of natural resources
12.3 Halve global per capita food waste
12.4 Responsible management of chemicals and waste
12.5 Substantially reduce waste generation
12.6 Encourage companies to adopt sustainable practices and sustainable reporting
12.7 Promote sustainable public procurement practices
12.8 Promote universal understanding of sustainable lifestyles
12-A Support developing countries' scientific and technological capacity for sustainable consumption and production
12-B Develop and implement tools to monitor sustainable tourism
12-C Remove market distortions that encourage wasteful consumption



13.1 Strengthen resilience and adaptive capacity to climate related disasters
13.2 Integrate climate change measures into policies and planning
13.3 Build knowledge and capacity to meet climate change
13-A Implement the UN framework convention on climate change
13-B Promote mechanisms to raise capacity for climate planning and management

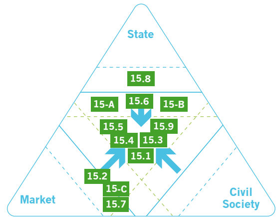


14.1 Reduce marine pollution
14.2 Protect and restore ecosystems
14.3 Reduce ocean acidification
14.4 Sustainable fishing
14.5 Conserve coastal and marine areas
14.6 End subsidies contributing to overfishing
14.7 Increase the economic benefits from sustainable use of marine resources
14-A Increase scientific knowledge, research and technology for ocean health
14-B Support small scale fishers
14-C Implement and enforce international sea law

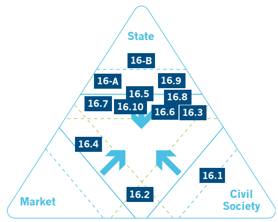


What? | **Who?** (targeted sectors)

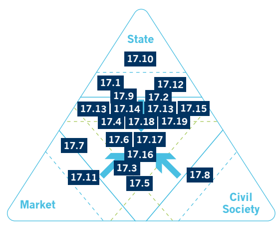
15.1 Conserve and restore terrestrial and freshwater ecosystems
15.2 End deforestation and restore degraded forests
15.3 End desertification and restore degraded land
15.4 Ensure conservation of mountain ecosystems
15.5 Protect biodiversity and natural habitats
15.6 Promote access to genetic resources and fair sharing of the benefits
15.7 Eliminate poaching and trafficking of protected species
15.8 Prevent invasive alien species on land and in water ecosystems
15.9 Integrate ecosystem and biodiversity in governmental planning
15-A Increase financial resources to conserve and sustainably use ecosystems and biodiversity
15-B Finance and incentivise sustainable forest management
15-C Combat global poaching and trafficking



16.1 Reduce violence everywhere
16.2 Protect children from abuse, exploitation, trafficking and violence
16.3 Promote the rule of law and ensure equal access to justice
16.4 Combat organised crime and illicit financial and arms flows
16.5 Substantially reduce corruption and bribery
16.6 Develop effective, accountable and transparent institutions
16.7 Ensure responsive, inclusive and representative decision-making
16.8 Strengthen the participation in global governance
16.9 Provide universal legal identity
16.10 Ensure public access to information and protect fundamental freedoms
16-A Strengthen national institutions to prevent violence, and combat terrorism and crime
16-B Promote and enforce non-discriminatory laws and policies



17.1 Mobilise resources to improve domestic revenue collection
17.2 Implement all development assistance commitments
17.3 Mobilise financial resources for developing countries
17.4 Assist developing countries in attaining debt sustainability
17.5 Invest in least developed countries
17.6 Knowledge sharing and cooperation for access to science, technology and innovation
17.7 Promote sustainable technologies to developing countries
17.8 Strengthen the science, technology and innovation capacity for the least developed countries
17.9 Enhance SDG capacity in developing countries



2.7 CONCLUSION: A PROMISING AGENDA WITH CONSIDERABLE GAPS

This chapter framed the topic of sustainable development as a systemic and complex challenge. To understand what that actually entails, complexity and wicked-problems-theory was applied in two ways: (1) by defining the most salient characteristics of complexity in order to identify the degree of 'wickedness' of a problem; and (2) by getting into the societal origins of wicked problems in order to define what levels of intervention are needed to effectively address the challenge. Two Scoreboards were developed that are an attempt at covering most dimensions of complexity. These do not invite a 'box-ticking exercise' approach, in large part because wicked problems are context dependent, unique and require different types of assessment. The two Scoreboards present a technique to assess 'what' and 'who' questions, not a solution to solving specific challenges.

Wicked problems can turn into wicked opportunities if taken seriously ('no denial') and with a proper balance in having and taking responsibilities ('no crowding out') by complementary sectors ('no institutional void'). The detailed effort to link the 169 sub-targets of the SDGs to actual sectors and levels of intervention also shows, however, that not all sub-targets cover all relevant dimensions of the wicked problems addressed by the SDGs. Many gaps still exist and many 'how' questions are insufficiently covered by the SDG agenda. From Part II we learned that this is, to a certain extent, inherent to the way wicked problems have to be approached. Yet it creates considerable gaps in our understanding of how specific actors can take action, and hence gives ample ground for cynics to follow the SDG processes at a distance. So, it is time to consider the 'how' question from the perspective of one of the most important societal actors in this agenda: business.

PART III HOW?

A FRAMEWORK FOR CORPORATE STRATEGIES IN SUPPORT OF THE SDGS

Business relevance:
How can companies contribute to the SDGs? The private sector, in some cases more powerful than government, has a vital role in reaching the SDGs. This is a big change from the old mindset about sustainability in which development issues were considered to be ‘government territory’. In fact, corporations are uniquely positioned to drive progress towards the 17 goals: they have the ability to innovate, to scale, to invest, and to employ (amongst many other strengths required to get to the SDGs).

Part III presents a strategic repertoire that companies themselves can adopt. It also defines the conditions under which these strategies need to be implemented. The aim is to delineate a basic strategic framework for corporations to implement the SDGs at all possible levels of intervention as addressed in Part II: (1) addressing market failure; (2) limiting negative externalities; (3) creating positive externalities; and (4) stimulating collective action.

This framework begins with defining the business case for sustainability. Four different levels of business cases for sustainable development can be distinguished, each with its own logic, positive rationale and different meaning. But no company is an island. Companies exist as part of a whole system, so systemic changes and cross-sector partnerships are required. It is time to move from narrow, ‘business as usual’ models to broader, pro-active, purpose-driven business models, and to define the ‘tipping points’ at which business – through the various functional areas of management – begins to create positive externalities in an inclusive way. Seven guiding principles enable companies to grasp the ‘how’ of using the SDGs as a strong mechanism for guiding strategic planning. These are presented at the end of Part III.

Questions for business schools:
- How can business schools foster cross-sector partnerships or a ‘partnering space’ that facilitates transfer of latest theory and practice in implementing solutions to SDGs?
- Which alternative business models that support the SDGs should be included in the curricula of business schools?
- How can the tools and models presented in this book be disseminated and put into practice on a broad scale?

3.1 INTRODUCTION: HOW CAN COMPANIES CONTRIBUTE TO THE SDGS?

In this final Part, we consider the 'how' question from one corner of the societal triangle: the market. Since the start of the millennium, businesses have not only been recognised as part of sustainable development's problem, but also an important part of the solution (Kolk & van Tulder, 2010). The 2030 Agenda for Sustainable Development reflects this position as follows: "We acknowledge the role of the diverse private sector, ranging from micro-enterprises to cooperatives to multinationals ... in the implementation of the new Agenda" (United Nations, 2015:10). The active participation of corporations is seen as a vital part of reaching the SDGs, a big change compared to older ways of thinking about sustainability in which development issues were considered to be predominantly 'government territory' (see Part I).

Then-United Nations Secretary-General Ban Ki-moon assigned the most dynamic role in the SDG endeavour to companies: "Governments must take the lead in living up to their pledges. At the same time, I am counting on the private sector to drive success" (UN News Centre, 2015). Helen Clark, head of the United Nations Development Programme, consequently added that "the new sustainable development agenda cannot be achieved without business" (UN News Centre, 2015). These statements were strongly supported by corporate leaders themselves. And not by accident: the SDG agenda – when successfully addressed – obviously presents a unique opportunity for business. It creates a 'trillion dollar' opportunity (Hoek, 2018). *The Better Business, Better World* report estimated that achieving the 17 Global Goals could open up an estimated US$12 trillion in market opportunities in four economic systems: food and agriculture, cities, energy and materials, and health and well-being (Business & Sustainable Development Commission, 2017). This opportunity is related to the investment and risk-taking required to make the SDGs work, but also highlights the potential market that will be created if all targets are met. If taken on vigorously, the SDGs can "offer a compelling growth strategy for individual businesses, for business generally and for the world economy" (ibid: 11).

Corporations are relevant in addressing the wicked societal challenges as presented by the SDGs for a variety of reasons:

- Corporations show great ability to scale activities across sectors, borders and products;
- They are able to innovate through their ability and willingness to take risk;
- Companies – next to governments – are the largest investor in technology;
- They can develop new organisational practices alone, or in concert with others;
- they serve the fundamental desire of people to face individual challenges in an entrepreneurial manner, and take responsibility for costs and rewards;
- Corporations create jobs, products and services;
- Due to their often very powerful positions in networks, technologies and sectors, they can be a formidable barrier to change if they are not involved in the change process;
- They can mobilise sizable and timely financial resources (either on the open stock market, or as part of other financial arrangements);
- They create efficiency, stimulated by competition, thus enabling cheaper solutions for existing products and services;
- They are aimed at investments rather than at subsidies;

- They are in principle aimed at value creation rather than at value distribution;
- In particular multinational enterprises are able to correct ‘market failures’ across borders, by internalising markets and organising practices on an international scale;
- They have the potential to contribute to public and common goods provision;
- They have various sizes and therefore strengths. Size matters in various ways: big companies are often more able to innovate and scale, smaller companies are better able to flexibly respond to short term challenges; small start-up social enterprises are often better able to take up social challenges in an entrepreneurial manner, but they have difficulty in scaling and reaching sufficient impact on the more wicked sustainability problems.

All these characteristics give corporations the potential to deliver on the SDGs (Hajer et al., 2015; Porter & Kramer, 2011; Scheyvens et al., 2016; United Nations Global Compact, 2017). Corporations have core capabilities that are distinct from other societal sectors and that *potentially* provide added value to society. The actual performance of companies to deliver on these promises is, however, still surrounded by considerable skepticism and low levels of trust (Part II). This relates to the basic challenges that companies face when trying to implement ‘responsible management’ principles (cf. Laasch and Conaway, 2017). It is difficult to walk the talk and get all the motives right, certainly when confronted with wicked problems that are not only related to collective action problems, but are also reinforced by some basic failure of markets to serve the needs of people (Van Tulder, 2018). In the CSR literature, the challenge of walking the talk is also referred to as the ‘promise-performance gap’. Whether or not corporations use their sizable capabilities in support of the SDGs and with a net positive effect, depends on a large number of factors: (1) the wickedness of the challenge (see Part II); (2) the regulatory environment they face in many countries; (3) what their competitors are doing (competitive environment); (4) technological possibilities; (5) the willingness of customers to pay.

Part III will primarily frame how strategy formulation and implementation processes can be linked to the SDGs. In general, a certain disconnect exists between ‘intention’ and ‘realisation’ in the implementation of many strategic aims (Mintzberg, 2015). So for companies it is not enough to *state* that they are supporting the SDGs, as Part I already illustrated; companies will also be held accountable for delivering on them, and proving themselves to be responsible societal actors. Studies on the responsible intention of companies are littered with failure to walk the talk, which in turn feeds the general distrust in their intentions. So why trust companies to seriously contribute to effectively addressing the various SDG challenges? Michael Porter and Mark Kramer (2011) who are amongst the most influential thinkers in the area of strategic management, already pleaded for a ‘reinvention’ of capitalism, away from the narrow approach to value creation and its fixation on short-term financial performance. If business would apply its capital and skills to scale new concepts, products and services that meet societal needs, it could engage in a new economic game of shared value creation aimed at local and global societal impact. The SDGs mirror this potential.

The corporate strategy question consequently boils down to a number of key ‘how’ questions:

- [a] How are companies looking at the SDGs in general – as a threat or opportunity?
- [b] How can companies select specific SDGs as part of their longer term strategy?
- [c] How can they internally organise this (and are they actually doing so)?
- [d] How should they organise this externally through coalitions and partnerships?

In Part III we focus in particular on the strategic repertoire that companies themselves can adopt, as well as defining the conditions under which these strategies need to be implemented. The aim is to delineate a basic strategic framework for corporations to implement the SDGs at all possible levels of intervention identified in Part II: (1) addressing failure; (2) limiting negative externalities; (3) creating positive externalities; and (4) stimulating collective action. This framework begins with defining the business case for sustainability at the four levels of intervention, and how to make specific issues material (Section 3.2). Next, we cover how companies can break through a relatively passive attitude towards these issues (Section 3.3); and which fundamental tipping points then have to be addressed (Section 3.4). We will provide a first analysis on how the SDG issues can be addressed at the moment (Section 3.5) and how they are being addressed (Section 3.6). Finally we will frame how the SDGs can be better addressed by aligning them with present and future strategies of companies (Section 3.7).

3.2 DEALING WITH SOCIETAL ISSUES: BUSINESS CASES AND MATERIALITY

Business literature in general discusses the ‘CSR’ or the ‘responsible management’ challenge of companies, not yet the ‘SDG’-strategy of companies. For the SDGs to be achieved, an active contribution by companies is necessary and increasingly acknowledged (Kourula, Pisani, & Kolk, 2017; Kumi, Arhin, & Yeboah, 2014; Pogge & Sengupta, 2015; Scheyvens, Banks, & Hughes, 2016). But just as many critical accounts exist of (multinational) enterprises that abuse their power and negatively influence sustainable progress, for instance through tax evasion, suppressing wages and labour standards, creating pollution (in search of so-called ‘pollution havens’), or lobbying for deregulation in social and ecological issues. Some companies reinforce a race to the bottom in which countries are lowering their sustainability standards; others are trying to contribute to a race to the top – which is what the SDGs are all about. How can we distinguish between the two?

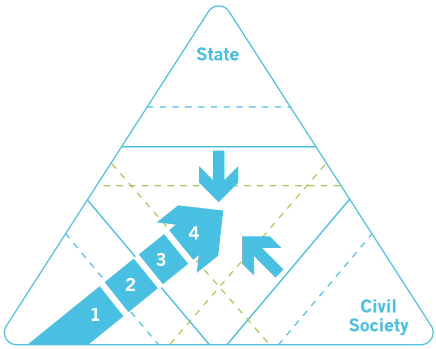
Whether companies contribute to a race to the bottom or the top is the result of the balancing act all companies face between ‘having’, ‘taking’ and ‘sharing’ responsibility for sustainable development (see Part II). A framework to assess the sustainability strategies of companies thus requires a further specification of two dimensions:

- (a) what does having, taking and sharing responsibility for SDGs strategically look like?
- (b) to what extent is this related to ‘avoiding harm’ or ‘doing good’?

Figure 3.1 shows the four levels of engagement on sustainable development that can be attributed to companies. Companies have a starting position in the left corner of the societal triangle, the market sector. Each level of engagement with the SDGs represents

a different 'business case' for sustainability. A business case captures the reasoning, the logic, and justification for initiating a project or task. It defines – either formally or informally – the business need and the basic reasoning (motivation) behind a strategy.

FIG. 3.1 *Four Levels of corporate engagement in the SDGs*



Four different business cases for sustainable development can be distinguished – each with its own logic, positive rationale and different meaning of the 'CSR' acronym. At each intervention or engagement level, embracing the SDGs poses a different challenge (explained in Section 2.5):

LEVEL 1: the classic business case:
At this level, the company deals with the sources of failure in the direct market situation. Failure can be created by illegal activities of companies (see Part II) and a breach of narrow fiduciary duty (for instance by producing toxic products for children, or colluding to raise prices for consumers). Market failure at this level can also be caused by an inadequate use of the cost-saving potential of sustainable investments. Cost-saving constitutes an important source of the classic 'profit maximisation' orientation of companies. In an increasing number of management fields, cost-saving presents a clear business case for sustainability. For instance, ecological investments lower costs and are thus actually an act of business as usual. Not investing in cost-saving sustainable technologies could in this case be seen as a proof of poor management judgement. A surprisingly large number of companies suffer from this type of mistaken conservatism: they are not reaping the fruits of existing eco-friendly technologies because these are considered 'soft' and not directly related to 'profit maximisation'. By not understanding the cost-saving potential of sustainable investments, companies add to market failure. The CSR acronym at this level of intervention stands for (well understood) Corporate *Self* Responsibility.

LEVEL 2: the defensive business case:
At this level, the company tries to make sure that negative externalities incurred on society will be limited, or will not negatively influence its operations. The degree to which society is willing to 'take' the costs created by negative externalities of the company (see Part II), defines to a large extent whether companies are going to include this

level of intervention in their sustainability strategy. A very strong incentive comes from reputational losses (Van Tulder with Van der Zwart, 2006; Laasch & Conaway, 2015). But there is also a positive argument: the 'value' of many companies is dependent on the trust society puts in them, which substantially lowers their transaction costs. Many companies base their prices (and thus their profit margins) on 'goodwill' and their brand-image. This applies to banks, but also to high-end products like Nike or low-end consumer products like Coca-Cola. Without this reputation effect, their margins would be substantially lower. The flip side of this, however, is that their reputation is also relatively fragile and prone to stakeholder influence. In case companies take limited responsibility for the negative externalities they create or incur on society, their reputation is increasingly at stake. The bigger the negative externalities that companies create, the greater the chance that they enter into a conflict with society, which consequently affects their profit margins. It has also been shown that during reputational crises, companies with a better sustainability outlook prove more resilient (Van Tulder, 2018). By building up and protecting their reputation, companies can also avoid stricter legislation or regulatory scrutiny. CSR at this level stands for Corporate *Social Responsiveness*.

LEVEL 3: the strategic or active business case:

Companies also create positive spillover effects or positive externalities through their regular activities. The legitimacy of a company depends to a large extent on the net outcome of positive and negative externalities. This is often a delicate balance between short-term and long-term considerations by the company's stakeholders. The contribution to common pool problems and the direct creation of positive effects on society, becomes part of corporate strategy. The strategy literature speaks about 'shared value creation' (Porter and Kramer, 2011): to have a positive return on investment for the company but also for society. Sustainability considerations then become an integral part of the long-term competitive positioning and survival strategies of companies. The easiest way to understand the logic of this strategy, is in a case in which vital natural resources (fish, minerals and the like) become depleted. This situation implies that companies active in these sectors will not have a product to sell or source in the near future. Unilever – in partnership with other non-market agents – initiated the Marine Stewardship Council (MSC) to support 'sustainable fisheries'. They did this for strategic reasons, not philanthropic ones. Sustainable fisheries safeguard their future business in this area. Unilever thus supported SDG14, even before it was announced. The same applies to issues of, for instance, sanitation (SDG6) that can seriously profit from raised levels of hygiene, which in turn is stimulated by a gesture as simple as handwashing with soap (a key Unilever product, providing the company a potential market of more than 3 billion people). Unilever, consequently, helped formulate some of the sub-targets of SDG6.
At this level of intervention the CSR acronym gets its most well-known connotation: Corporate *Social* Responsibility. This type of CSR strategy and SDG involvement presents a strategic business case. It aims at an optimisation of positive externalities. It requires companies to go beyond 'liability-oriented' reasoning and more into responsibility and 'positive duty-oriented' reasoning.

LEVEL 4: the systemic or proactive business case (also known as the 'new economy' business case):

Wicked challenges in particular play out on the level of whole systems. Part II showed that most SDGs are systemic in nature – although often caused by basic failures at the level of primary responsibilities – and thus require a distinct type of corporate approach. The more companies recognise that the issue is part of a failure of the whole system, the more they will be interested in developing strategies that not only create a competitive

advantage for themselves (level 3), but also contribute to 'fixing' the system. In the words of DSM CEO Feike Sijbesma: "Businesses cannot be successful in a society that fails. They need to take care of the planet and of society – not just one group of stakeholders"[4]. Many corporate leaders have formulated a similar motive for their involvement in the SDGs. An increasing number of companies not only recognise that they have to contribute to change in their sector, but also that this has to be 'transformative', 'radical' or even 'disruptive'. The business case for individual companies is then related to the ability of a company to help shape this 'new economy', to timely organisation of the company around the new principles of this new system, and to be one of the first to profit from this. Sustainable management at this level presents a quest for new synergistic value creation, for instilling a positive attitude to learning and adaptation, innovation, risk and opportunity management in a complex, dynamic environment, and for introducing new earnings models, advancing system transitions and forming partnerships. At the fourth level of intervention, CSR is better known as '*Corporate Societal (or Sustainable) Responsibility*'. At this level in particular, companies can never develop business models in isolation, outside the whole system.

Making sustainability issues material

The integration of sustainability in the strategies of companies is determined by the degree to which sustainability issues can be made 'material'. An issue is material if "it could substantially affect the organisation's ability to create value in the short, medium or long term" (IIRC, 2013: 33). Corporations are confronted with a large number of sustainability issues, which creates sizable dilemmas in determining what and what not to address (Van Tulder with Van der Zwart, 2006). Thus companies have started to use so-called materiality assessments to determine the threshold at which specific sustainability issues are deemed so important by relevant stakeholders that they should be addressed in the corporate strategy.

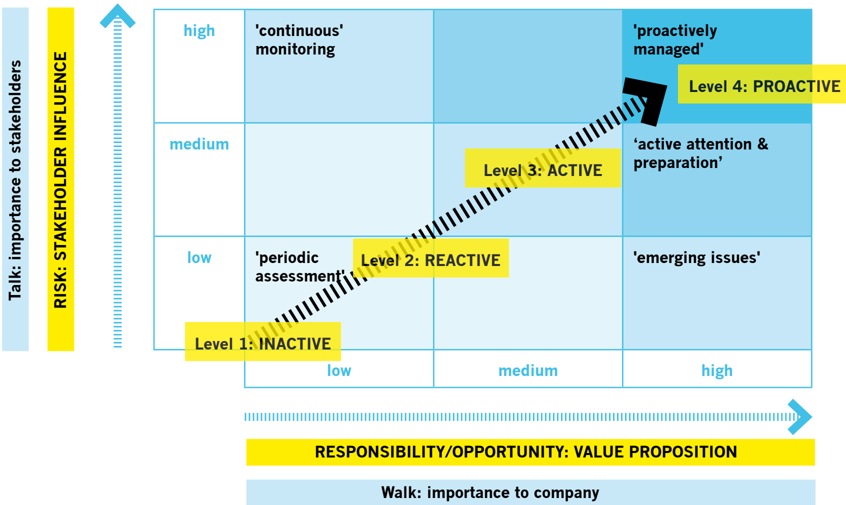
Typically, materiality starts from the perspective of the company and prioritises sustainability issues in direct response to stakeholder pressure. In the classic research by Bansal and Roth (2000) on corporate motivations for (ecological) sustainability, the so-called 'issue salience' was shown in particular to influence corporate *responsiveness* (level 2). Later on, this idea was further operationalised as the materiality, or the importance of the issue, for the company. The archetypical materiality matrix (Figure 3.2) confronts the importance of issues for stakeholders at the Y-axis (which identifies those topics that the company is supposed to 'talk' about), with the importance of these issues to the company on the X-axis (which identifies how important it is to 'walk'). The materiality matrix then consists of at least four quadrants that present combinations of relative importance. The top right quadrant of a materiality matrix contains issues that are not only significant to the company but are also issues that the company's stakeholders deeply care about – and which the company must therefore manage proactively.

The Global Reporting Initiative (GRI) advises companies to focus the bulk of their annual report (the 'talk') on how they are addressing these issues. The technique introduced by GRI is to establish the relevant topics first, and then to define what aspects to consider material. This step is then used to plot the influence of these aspects on stakeholder decisions along the vertical axis, and the assessed significance of the economic,

4 In his keynote speech at the RSM Leadership Summit, October 2017. Quote retrieved from https://www.rsm.nl/positive-change/positive-change-news/news-detail/13781-how-can-business-be-a-force-for-positive-change/

environmental and social impacts at the horizontal axis. The materiality matrix as introduced by GRI (Cf. Figure 3.2) builds on a long-standing practice of companies in the area of 'issues management' which used issue-priority matrices in order to position issues in terms of importance and likelihood of occurrence (cf. Van Tulder with Van der Zwart, 2006).

FIG. 3.2 *Materiality matrix and issue prioritisation*



Source: Based on GRI, 2015; Steiner and Steiner, 2000; Van Tulder et al, 2014

Many companies have used the materiality matrix internally to map stakeholders and issues. The tool was largely used as a (reactive) risk management strategy, to anticipate where in particular the greatest operational risks could occur. In later phases, some companies included issue priority matrices in their sustainability reporting. Sustainability reporting is considered an effective channel of communicating CSR efforts, but a major risk is that companies only publish what management deems relevant or how they interpret and frame stakeholders concerns. The low propensity for transparency about the determination of material issues and the low quality or lack of data on contentious issues, are big challenges that have to be overcome (Mio, 2010 in Hsu et al., 2013). Firms have to manage conflicting interests and objectives and credibly articulate this in order to drive learning and innovation (AccountAbility, 2006 in Edgley et al., 2015). To communicate effectively, companies have to determine the scope and range of provided information, stakeholder groups and the time frame (KPMG, 2014 in Jones et al., 2015). Furthermore, GRI (2015) emphasises that some of the sustainability impacts of companies are not immediately visible because they are cumulative and slow to materialise, or because they occur at a distance from the stakeholders, which obscures causal relations (Jones et al., 2016). Sustainability communications have therefore often been a PR exercise, telling feel-good stories about irrelevant issues, rather than a meaningful story about value creation (IIRC, 2013). Talk, but no walk. A study by AccountAbility (2015) shows that most companies are using stakeholder engagement and materiality as risk-based tools to manage reputation, rather than as opportunity-based tools.

By using materiality assessment primarily as a reactive tool to assess risk, companies lowered the strategic importance of the tool to assess opportunities aimed at shared value propositions. Critical studies on the use of materiality or issue priority matrices found that these are more about intent than about performance: implementation is rarely guaranteed. Matrices are often supply-driven instead of based on (tacit or future) needs, and are relatively static, while every year priorities shift due to changing stakeholder engagement. Often they do not take sufficient account of diversity between and within stakeholder groups. Materiality matrices are mostly accumulated through consultation with a selected group of (friendly) stakeholders that are not necessarily the most critical or important ones. The impression exists that in many instances the importance of the topics is pre-determined by the company (with some limited input from stakeholders). Moreover, there is often a difference between the public matrix and the one being used for internal decision-making. Most matrices are very individualised assessments that do not show the industrial benchmarks used by peers and investors to compare performance, nor do they include the key sustainability performance indicators used within an industry (Bouten & Hoozée, 2015; Murninghan & Grant, 2013; Zhou & Lamberton, 2011). In addition, KPMG (2014) states that senior management is often not involved in the materiality assessment process; that businesses are generally too complex for a meaningful materiality assessment; that material topics generally tend to be too broad or overlap; and that there are more material issues than the company can (or wants to) manage.

These findings are a further indication of the relatively reactive nature of the exercise; the materiality matrix is primarily used to identify threats, rather than opportunities. It also indicates that the use of the materiality matrix can be improved as soon as the issue definition becomes future-oriented instead of backward looking. This is exactly what the SDGs aim at, but it requires that companies are able and willing to break through the reactive threshold: from 'avoid doing harm' (corporate responsiveness) to (also) 'doing good'; from level 1 and 2 to level 3 and 4 interventions and business models.

3.3 BREAKING THROUGH THE REACTIVE THRESHOLD: STRATEGIC TIPPING POINTS

Companies face considerable hurdles if they want to move from lower to higher levels of engagement with the SDGs (levels 3 and 4). This barrier is not only related to the real characteristics of the issues at hand, but can be created by internal (mindset) barriers that make entrepreneurs more reactive than actually needed. The innovation literature talks about the 'incumbent's curse', referring to leading companies that attempt to solidify their market positions with relatively incremental innovations in the face of radical innovations and business models from entrepreneurial newcomers. Such an overly conservative and defensive response consequently creates a barrier to societal change. What is needed to break through this barrier of passivity (and the lack of entrepreneurial spirit)?

Firstly, the corporate definition of 'fiduciary duty' and 'fiduciary responsibility' has to broaden to include not only a view on limiting negative effects, but also on increasing positive externalities in the business model. Secondly, this requires a much broader definition of what aspects to include in the business model. Thirdly, it calls for a strategic view on the partnerships portfolio.

Broadening the fiduciary duty/responsibility

The trust stakeholders put in companies is strongly influenced by the way their managers act in the interest, and for the benefit, of others. This is also referred to as the fiduciary responsibility (or duty) of a company. There are both a narrow, and a broad interpretation of fiduciary duty.

In many countries the fiduciary duty of a company is narrowly embedded in national governance laws. In the United States, for instance, the fiduciary duty of publicly listed companies is primarily defined as serving the needs of the shareholders. Fiduciary responsibilities are related to the so-called 'agency' relationship between a capital provider (shareholder, member, donor – also referred to as the 'principal') and the manager of an organisation. Trust is then largely based on a negative duty approach, i.e., that the manager will not engage in insider trading, legal malpractice or fraud. Fiduciary duties often informally support the legitimacy of companies. If companies do not act in the interests of their customers – for example by selling toxic products, or cheating – fiduciary duty is breached. However, these forms of 'market failure' (see Part II) are often difficult to judge from a regulatory perspective, because of two factors: (1) the implementation of regulation is difficult and costly; and (2) strict regulation often goes at the expense of innovation.

Fiduciary duty can also be elaborated in a broader sense, by not only including the relationship with direct stakeholders, but also the relationship with society as a whole. To move from a narrow to a broader interpretation of fiduciary duty involves leadership and a reframing of the company's goals towards a positive-duty and responsibility approach. Often, regulators trail behind these developments. The 'institutional voids' that result from such uncovered territory can create opportunities for companies to develop better business models (see Part II). When for instance Safaricom – a subsidiary of telecom provider Vodafone in Kenya – started to add financial services to its mobile phones while at the same time reaching out to poor people to create financial inclusion through mobile money, the system it created (M-Pesa) revolutionised the market for finance in Kenya. The narrowly-defined fiduciary duty of the banks did not allow them to set-up – as Safaricom did – 120.000 little kiosks that functioned as a 'bank' for poor people (Lashitew, Van Tulder, 2018).

Nowadays the M-Pesa system contributes to approximately half of the profits of Safaricom, but has also noticeable effects on poverty alleviation through providing poor people access to financial services. The company is not only scaling this activity, but is also rapidly adding functions to this system in health and insurance, still aimed at serving the needs of poor people. As a new entrant to banking Safaricom did not suffer from an incumbent's curse. But it would probably not have achieved the same success had it been a small company. Broadening its existing value proposition as a network- and city-oriented company (SDG9 and 11) by including the needs of poor people in rural areas (SDG1), was therefore vital for success. So, if handled well, a positive-duty approach that searches for systemic approaches provides a stronger perspective to deal with societal trust issues than a negative-duty approach, which looks at sustainability issues as incidents that have to be repaired, yet with the risk of recurring.

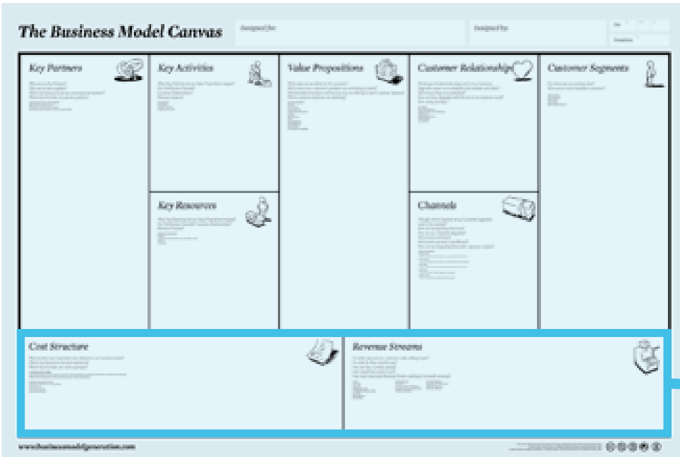
Including positive as well as negative externalities

The so-called business CANVAS model as originally introduced by Alexander Osterwalder (Osterwalder & Pigneur, 2010) has been a popular visual and strategic template of business models. The model specifies the basic activities of a company around its *value proposition*. Towards customers, it is about *designing value* (customer relations, channels, and segments); towards its suppliers, it is about *creating value* (resources, activities, and partners) as well as the financial bottom line of the business model (the net effect of cost structure and revenue streams). The model has turned into a powerful tool for assisting firms in aligning their activities, by illustrating potential trade-offs and aiming at capturing value.

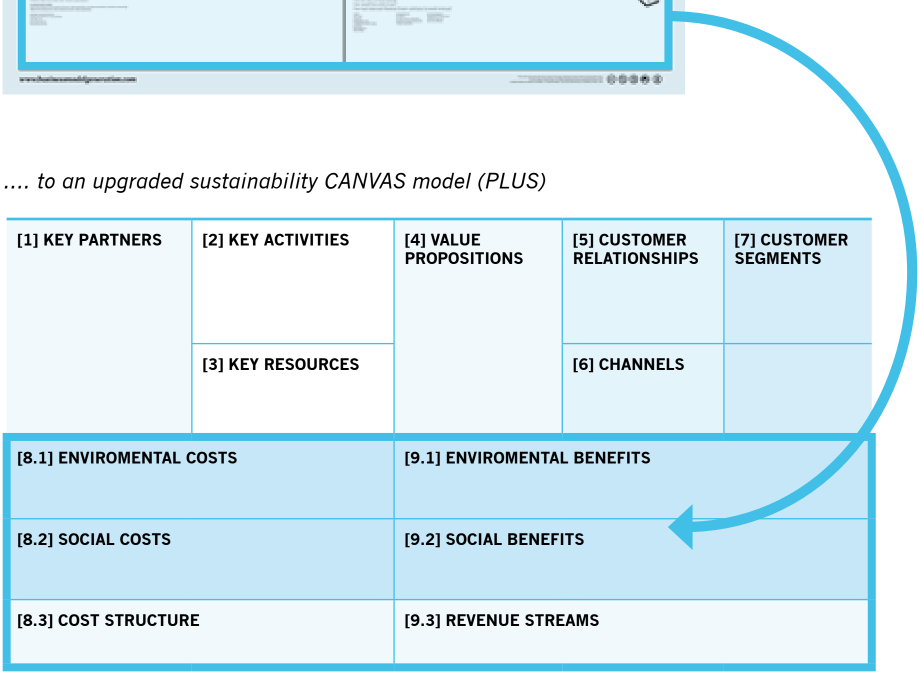
Thinking in terms of sustainable business models requires that the CANVAS model moves from just a profit purpose, to also include a social and environmental purpose. This implies that the value proposition is broadened. The financial account also needs to include the positive and negative externalities of the business model, as a successful (sustainable) business model not only achieves a positive net-value in terms of profits, but also in terms of social and ecological added value. By creating social and ecological value, companies also create shared value, through which they can increase their impact on societal grand challenges. The approach of designing business models that aim at shared value creating is also known as 'inclusive business'. The inclusive business model thinking regarding CANVAS Plus models (cf. Lashitew and Van Tulder, 2018) has progressed to include for instance separate – and more detailed – business models for social enterprises, or inclusive business models.

FIG. 3.3 *From business model CANVAS to CANVAS Plus*

From traditional CANVAS model...



.... to an upgraded sustainability CANVAS model (PLUS)



Source: https://www.youtube.com/watch?v=wIKP-BaC0jA

From narrow business models to broader business models

There is considerable confusion as to what the ultimate motivation/ambition of sustainable business models actually entails. The sustainable business model literature deals with a wide variety of societal and economic ambitions, such as circular economies, inclusive growth, sustainable development, moral or humanistic capitalism, creative capitalism, sharing-economy or we-economy. All of these approaches put emphasis on the business side of change, because they acknowledge that sustainability issues cannot be

regulated away or taken up by individual, societal actors. Purpose-driven business models are considered to drive the New Economy (Huffington Post, 2015, Hollensbe et al, 2014). The corporate purpose is in principle embedded in the value proposition. Most of the differently named business models represent complementary elaborations of the same ambition: to advance financially sustainable business models that contribute to societal and ecological sustainability by addressing many of the shortcomings of the present societal model – including external costs and benefits. All emphasise the combination of two leading motives: profit motives and societal motives have to be combined in an entrepreneurial manner in order to create the positive change that is needed to drive sustainability to a next level.

The crux of the assessment on the sustainable nature of these business models lies in the way they are elaborated and with what type of motivation they are aligned (cf. Van Tulder, 2018). Are the models reactive with modest change ambitions, or are they based on proactive and transformational ambitions? The intention-performance gap becomes particularly great if the business model is developed as an answer to a systemic crisis yet introduces relatively reactive approaches. The problem then lies in the qualitative definition of the sustainability concept approach, and consequently in the derived quantitative measure of progress.

Generally, sustainable business models are framed as an alternative paradigm to existing, failed, economic and organisational paradigms:

- A ‘circular economy’ as an answer to the linear economy, with its ‘take, make, dispose of’ model that leads to wasteful production systems in a world that is crowded and has finite resources;
- An ‘inclusive economy’ as an answer to the exclusive production model of large firms that produce only for those who can afford the products, ignoring the poor parts of society;
- A ‘sharing/we/peer-economy’ (aiming for collaborative consumption, in which ownership is shared and buying turns into renting), as an answer to the organisation of markets based on individualistic preferences and short-term consumption-oriented interests;
- Moral, creative or humanistic capitalism[5] as an answer to ‘purposeless capitalism’ that puts the burden of negative externalities with society as a result of its one-sided orientation towards shareholder capitalism and profit maximisation.

Subsequently, the stated purpose underlying the sustainable business model can be aimed at (1) limiting negative externalities (reactively motivated); or (2) enhancing positive externalities (active or proactively motivated) and addressing transformational change (Luedeke-Freund and Dembek, 2017). A few examples:

- The aim of the circular economy is often defined as ‘minimising’ waste emissions, resource inputs and energy leakages through recycling and slowing down energy loops. But it can also be seen as fully closing material and energy loops to create a completely waste-free economy.

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5 Moral capitalism: Adam Smith; Creative capitalism: Bill Gates; Humanistic capitalism: Mohammed Yunus

- Inclusive economies are often narrowly defined as creating products for the bottom of the pyramid, providing cheap products to poor people or creating a minimum wage – usually slightly above subsistence level. But the definition can be broadened to take the whole production system into account, thus taking the social side of the economy as a trigger for high-quality growth.
- The shared economy is often in very general terms defined as collaborative consumption or sharing products and services, which lowers the price of using these products and services. If these services and products are centrally provided (as for instance with Airbnb, Uber or Facebook), they also create negative externalities on society (bypassing the middlemen, triggering a race to the bottom in terms of social protection and fair wages, privacy challenges). The shared economy can also be explained as a decentralised system of networks and marketplaces to 'unlock the value of underused assets by matching needs and haves' (Botsman, 2016). In a decentralised, non-extractive sharing economy, the argument is that 'Airbnb' should be 'Fairbnb' or 'community-powered tourism.'[6]
- Creative capitalism is a term introduced by former Microsoft CEO (and according to Forbes the world's biggest philanthropist) Bill Gates. In his view, creative capitalism uses market forces to better address the needs of the poor. In the narrow version, this boils down to a profit orientation complemented by philanthropic efforts.
- Social enterprises and B-corporations have legal status in the United States and the UK. This is also a growing phenomenon in other countries. In Anglo-Saxon countries, it can be interpreted as an organisational form that fills gaps resulting from modest government involvement in the social economy and as part of a tax deduction scheme (social enterprises are exempt from taxes). It can also be interpreted as a hybrid organisational form: to create an organisation that is more purpose-driven with an enhanced positive impact on society. A major challenge for enhancing the impact of social enterprises is their financial sustainability (many of them face the so-called 'valley of death'), their scalability and consequently their relatively low impact on major sustainability issues. Social enterprises run the risk of remaining niche-players.
- Finally, even the most-quoted definition of sustainable development by the UN Brundtland committee (1987) can be classified as a more or less defensive elaboration of sustainability. It defines sustainable development as 'meeting the needs of the present without compromising the ability of future generations to meet their own needs.' A more proactive elaboration would read 'meeting the needs of present generations while enhancing or improving the ability of future generations to meet their own needs'. The latter elaboration is less about limitations and more about opportunities.

Seemingly similar terms for sustainable business models can demarcate completely different practices. As a consequence, the discussion on sustainable business models gets regularly clouded by arguably sympathetic frames that turn out to have less positive effects than suggested, because broader societal, and longer-term and indirect effects, were not taken into account. In the scientific discourse on sustainable business models, taking these effects on society into account has led to the upgrading of many of the original concepts. Take for instance the case of the 'bottom of the pyramid' (BOP) and the inclusive business discourse. The largely market-driven elaboration of the original concept by leading strategy scientist C.K. Prahalad (2004) – who claimed to eradicate poverty through profits, referring to the 'fortune' to be found at the bottom of the pyramid –

6 https://www.meetup.com/nl-NL/FairBnB/.

received serious criticism.[7] The idea that the poor would present a huge untapped market was considered to represent an exploitative and imperialistic model in which the poor were only viewed as consumers. It was acknowledged that whole communities of customers and producers need to be included to really support the claim that a BOP business model can contribute to sustainable or inclusive development. Comparable discourses evolved around the concepts of shared-value creation and its claim on 'how to fix capitalism' (Crane et al, 2014), and the concept of creative capitalism and its claimed positive role of philanthropic efforts.

So the discourse often moves in two stages that define the motivation for a particular business model. First, as a more modest (reactive) approach to fixing problems within the premises of the existing system; second, as a more radical (proactive) approach that requires transformational (radical) change. Both frames influence motives and the actual implementation processes of International Corporate Responsible (ICR) business models. Consequently, both dimensions have to be mapped separately in order to understand whether companies are actually trying to overcome the greatest tipping point in their orientation: to move from a narrowly-defined to a broadly-defined business model. In other words: from shareholder to stakeholder value (Table 3.1).

TABLE 3.1 *From narrow to broad sustainable business models*

Sustainability ambition business models	Narrow- reactive elaboration LEVEL 1 + 2	TIPPING POINTS	Broad – proactive elaboration LEVELS 3+4
General ambition	Avoid doing harm Narrow fiduciary duty/responsibility Value propositions based on markets Shareholder value Risk aversion Reactive and tactical		Doing good Broad fiduciary duty/responsibility Value propositions based on needs Stakeholder value Risk-taking Pro-active and strategic
Circular economy	Minimising waste reduction		Closing production and consumption loops
Inclusive business	Including poor/excluded people as consumers		Including poor/excluded people as communities, empowering people
Social Enterprise	Filling gaps left by society, hybrid companies (compromise)		Developing scalable purpose-driven companies
We/sharing-economy	Centralised, lower pricing strategies: Airbnb, Facebook, Uber		Decentralised and open source; Co-creation of social goods; energy cooperatives; Wikipedia; Linux; 'Fairbnb.'
Creative capitalism	Repairing deficiencies of capitalism; giving back to society; philanthropy		Create innovative and entrepreneurial solutions for societal challenges as part of core business.
Sustainable development [Brundtland Commission]	"Development that meets the needs of the present without compromising the ability of future generations to meet their own needs."		Meeting the needs of present generations while enhancing or improving the ability of future generations to meet their own needs.

7 New authors first criticised the supply chain side of the challenge – leading to a BOP 2.0 version that put a greater emphasis on the need to involve local communities in co-creating in order to create more innovative, relevant, sustainable and lasting products and solutions. Later on, in response to early findings on negative effects on local communities of integration in global value chains, a more fundamental frame was proposed: BOP 3.0 (Hart et al, 2013).

3.4 MAKING IT FUNCTIONAL – BREAKING THROUGH 'BUSINESS AS USUAL' MANAGEMENT LAYERS

Making these general considerations more concrete, implies that companies link these considerations to functional levels of management. But it starts with awareness. The implementation of sustainable business models at a more concrete level of management is influenced first by the basic motivation of managers: how 'wicked' do they consider the present system in which their company has to operate? Is there systemic failure or (only) market failure? What are the root causes of the sustainability challenge? Depending on this assessment, managers may consider the challenge as a threat, an opportunity or both. The next step requires a further identification, valuation and definition of what it takes to break through conservative management layers (Van Tulder, 2018).[8]

First, strategies are defined at a generic level, which boils down to a mission and a vision. Yet the real challenge is often defined at the next level of implementation: in functional areas of management. A growing body of literature is developing that can help managers with defining the antecedents for more sustainable and inclusive business models:

- In Strategic management, the quest is for 'shared value creation' (Porter & Kramer, 2011);
- In Financial management, the quest is for inclusive finance or 'sustainable finance 3.0'; [9]
- Marketing theory is moving from being aimed at existing markets and demand, to a 'theory of needs' that focuses on the needs of people beyond their identity as customers and therefore also on latent demand (as exemplified by the SDGs);
- Innovation theory explores 'disruptive' and 'open innovation' concepts, which require networks of market and non-market agents to work together on systems innovation;
- Operations management and supply chain management theories look at creating closed loops of resources, materials and people to raise efficiency and effectiveness while stimulating sustainability;
- Human Resource Management theories introduce the value of 'purpose', 'vision' and 'commitment' in personnel management: proactive sustainability strategies contribute to a more resilient and 'agile' workforce (Van Tulder et al, 2014).

Table 3.2 provides a checklist of basic business model indicators at each of the four levels of societal intervention. The key tipping point from a narrow to a broad level of societal intervention can be positioned at the transition from level 2 to level 3. But each transition (including from level 1 to level 2 or level 3 to 4) requires substantial changes in the business model. Table 3.2 shows that each functional area of management can also be linked to a number of (obvious) SDGs with overlapping themes and focus areas. Depending on the emphasis corporate leaders put upon each of these functional areas to lead the transition, combinations of SDGs can be chosen as points of reference.

8 In the book 'Getting all the motives right. Driving ICR to the next level', these motivational maps are elaborated and explained in much more detail.

9 Publication No.2 in the RSM Series on Positive Change, 'A Framework for Sustainable Finance' by Dirk Schoenmaker (2017), explains this concept in more detail.

TABLE 3.2 *From narrow to broad: functional management areas*

	LEVEL 1	LEVEL 2	TIPPING POINTS LEVEL 3	LEVEL 4
Root causes of challenge	Market failure – needs to be addressed by individual companies	Sectoral – needs to be addressed within the sector	Systemic – can be addressed on individual basis	Systemic – address on sectoral and societal level
GENERAL MANAGEMENT APPROACH				
CSR orientation	Corporate Self Responsibility	Corporate Social Responsiveness	Corporate Social Responsibility	Corporate Societal Responsibility
Ultimate ambition	Profit maximisation	Limit negative externalities	Enhance positive externalities	Take up collective action challenges
Fiduciary duty; agency	Narrow: towards owners	Limited: primary stakeholders	Broader: primary and secondary stakeholders	Broader: society at large
Main narrative	Doing things right	Don't do things wrong	Doing the right thing	Doing the right things right
	Doing well	Doing well, don't do harm	Doing good	Doing well by doing good
Partnering approach	No partnering: sponsorship; philanthropic	Transactional: single issue partnering; intra-sectoral	Integrative: strategic partnerships: bi-partite	Transformational: tripartite partnerships
Issues/SDG topics • Partnering for the SDGs • SDG portfolio	No reference to SDGs	Reactive selection of limited number of SDGs based on most resilient issues; limited 'partner' involvement/ alignment	Active selection of SDGs that are the most promising; strategic alignment of partnerships portfolio; present markets	Explicit search for nexus of SDGs related to potential partnership portfolio; future markets
Main SDGs	16 PEACE, JUSTICE AND STRONG INSTITUTIONS; 17 PARTNERSHIPS FOR THE GOALS			
FUNCTIONAL AREA: SUPPLY CHAIN MANAGEMENT				
Vale chain (supply chain management)	Linear, no compensation for externalities	Linear, but with compensation for negative externalities	Largely linear, but active search for local positive externalities	Circular, shared value creation including supplier communities
Main SDGs for supply chain management	2 ZERO HUNGER; 6 CLEAN WATER AND SANITATION; 8 DECENT WORK AND ECONOMIC GROWTH; 11 SUSTAINABLE CITIES AND COMMUNITIES; 12 RESPONSIBLE CONSUMPTION AND PRODUCTION			
FUNCTIONAL AREA: MARKETING				
Needs/market orientation	Explicit demand and existing markets		Explicit needs/latent demand and created markets	
Customer focus	Cost minimiser	Buyer	Responsible consumer	Co-producer
Main Issues/SDGs:	2 ZERO HUNGER; 3 GOOD HEALTH AND WELL-BEING; 5 GENDER EQUALITY; 7 AFFORDABLE AND CLEAN ENERGY; 10 REDUCED INEQUALITIES; 12 RESPONSIBLE CONSUMPTION AND PRODUCTION			

FUNCTIONAL AREA: HRM				
Vision on employees	As primarily cost or production factor	As potential 'risk factor' (ethical or whistleblower)	As an asset and possible followers of the philosophy	As greatest assets; co-producers; empowerment
Related issues/ SDGs	1 NO POVERTY; 3 GOOD HEALTH AND WELL-BEING; 4 QUALITY EDUCATION; 5 GENDER EQUALITY; 8 DECENT WORK AND ECONOMIC GROWTH; 10 REDUCED INEQUALITIES; 16 PEACE, JUSTICE AND STRONG INSTITUTIONS			
FUNCTIONAL AREA: FINANCE				
Value Proposition	Profit maximisation	Shareholder value maximisation	Stakeholder/ shared value creation	Societal value creation (common goods)
Likely planning horizon; Return on investment focus	Short-term; day-by-day	Quarterly profits	Annually-longer term returns on investment; social return on investment	Longer-term value creation; societal return on investment; creation of natural capital
Issues/SDGs: • Speculative capital • Taxation; • Headquarter location	Tax avoidance; lobbying for low taxation	Tax management (active use of international voids); limit base erosion (OECD BEPD project)	Positive tax management: Publish what you pay; creating transparency in the own sector; stop base erosion	Pressure for 'fair taxation' and international regulation creating a solid base for sustainable development
FUNCTIONAL AREA: OPERATIONS/RESOURCES MANAGEMENT				
Orientation	Linear	End-of-pipeline; CO_2 storage	Growing market for sustainable end products and technologies that prevent pollution	Circular
Business case for ecology	Yes: limiting waste limits costs	End-of pipeline; reputational effects are proven; eco-efficiency (application of existing technologies)	Yes, development of technologies	Circular: in partnerships (and higher levels of regulation)
SDG Relevance (selection)	6 CLEAN WATER AND SANITATION; 7 AFFORDABLE AND CLEAN ENERGY; 12 RESPONSIBLE CONSUMPTION AND PRODUCTION; 13 CLIMATE ACTION; 14 LIFE BELOW WATER; 15 LIFE ON LAND			
FUNCTIONAL AREA: INNOVATION				
Type of innovation	Closed innovation, supply-driven	Closed innovation, demand driven; frugal innovation: reducing complexity and cost	Closed/open innovation; (go-it-alone together with companies)	Open/inclusive innovation; (together with consumers and stakeholders)
Technology	Off-the-shelf technology	End-of pipeline	Product improvement	Systemic
Pace of innovation	Ad-hoc/application	Incremental	Radical/incremental	Disruptive
SDG Relevance (selection)	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE; 10 REDUCED INEQUALITIES			

Setting up a proper portfolio of cross-sector partnerships

The more companies want to move beyond the reactive (narrow) stage at levels 1 and 2 of corporate strategy formulation, the more they need to collaborate with others (Table 3.2). At a more tactical level – within their own sector (with other market agents) – they largely deal with operational and reputational challenges. In case companies aim at more strategic levels of engagement (at levels 3 and 4) they should consider a much more elaborate portfolio of cross-sector partnerships. This implies that alliances are forged with so-called 'nonmarket' actors, such as Civil Society Organisations (also known as NGOs) and governmental organisations.

Research from the Partnerships Resource Centre (PrC, 2010) shows that by 2010, almost all Fortune 100 companies had started to create quite extensive portfolios of cross-sector partnerships. The average number of 'partnerships' per company was eighteen. Yet 'created' partnerships are not always 'real' partnerships. Follow up research has shown that the function of their creation, for the participants as well as for the aim (like the MDGs or SDG) they are intended for, is often unclear, underfunded or poorly managed (Van Tulder et al, 2016).[10] From the perspective of companies, one of the most obvious challenges they face in collaborative efforts is how to align the motives of all involved parties in the partnership. This quest for strategic fit is referred to as 'strategic alignment'.

In the literature on partnering (Veldhuis, 2015), Austin and Seitanidi (2012) introduced a collaboration continuum to identify the degree of engagement in partnerships. They identified four nodes on a continuum that define increasing intensities and ambitions for partnerships: Philanthropic; Transactional; Integrative; Transformational. Their collaboration continuum provides a way to look at collaborations as dynamic phenomena. No stage is a discrete point, but every node represents a higher level of commitment. Collaboration projects are always multifaceted, so some characteristics may be closer to one reference stage while other traits are closer to another. The continuum does not imply that being transformational is necessarily better than being in a philanthropic relationship; this depends on the goals and the expectations of the partners.

The continuum defines the degree to which the intentions for partnership can be considered more or less strategic. Philanthropic partnerships are usually relatively ad-hoc (level 1); transformational partnerships are inevitably strategic (level 4). The continuum provides a practical tool for organisations to assess their own and their partners' strategic intention for the partnership (Table 3.3).

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10 For more information on partnerships and an overview of relevant research and insights, go to the Partnerships Resource Centre (PrC) website at https://www.rsm.nl/prc/. For an overview of partnership portfolio strategies the PrC's State of the Partnerships reports (2010, 2011, 2015) will be of interest as well.

TABLE 3.3 *Cross sector partnership continuum*

Ad Hoc	**Philanthropic [LEVEL 1]**	Company involved in providing welfare to society through charitable giving, such as sponsoring sports clubs and donating to charitable organisations. Resources often flow in one direction: from the business to the Civil Society Organisation (CSO). The transferred resource mainly helps the CSO in pursuing its mission and goals, but it involves a low degree of commitment and links with the core activities of the organisation.
	Transactional [LEVEL 2]	The rationale for transactional partnerships is improving the profitability of market share from a business perspective. Examples are bottom of the pyramid initiatives. Other examples are marketing campaigns whereby consumers buy a product, of which a certain percentage of the profit goes to charity.
	Integrative [LEVEL 3]	The focus lies on balancing the interests of the organisations involved by actively using their core competencies. An example is a partnership between an advocacy organisation and businesses that use certification programmes in order to sustain their commodity chains.
Strategic	**Transformational [LEVEL 4]**	Interact with all relevant societal stakeholders in order to respond to all partners' needs and resources equally. Aimed at systems change, which can lead to disruptive social innovation and new organisational forms.

Source: Based on Austin and Seitanidi, 2012

The challenge for strategic alignment then is whether *both parties* have the same understanding of their partnership and have comparable degrees of engagement and motivation. Philanthropic relations, for instance, require much less commitment to the partnership than integrative or transformational partnerships. As long as both parties share the same ambition, the partnership can be a great success. For partnerships that involve less engagement, the termination of the partnership is not necessarily a bad thing, as long as each party right from the outset understands that the intention for its creation is temporary and philanthropic. The success of transformational partnerships is dependent upon the long-term engagement of both parties. Strategic alignment appears when the collaborative parties have the same intention for the partnership. Strategic misalignment appears when these intentions differ and are either not understood or not communicated. The most frequent source of misalignment with Dutch CSOs in their partnerships with companies appears in those 'partnerships' where the prime motive of the company is philanthropic, whereas the CSO perceives the relationship as integrative or even transformational. Many examples exist of CSOs that failed to anticipate the sudden and often unilateral termination of sponsorship by a major donor. Essentially, they had made too optimistic an assessment of the degree of engagement of this particular partnership for the company.

Exploratory research by the Partnerships Resource Centre (2015) has shown that partnerships with a high level of engagement and strategic alignment are evaluated positively and achieve most operational impact (Veldhuis, 2015). It was also found that this type of partnership requires considerable investments in time, money and effort. Additionally, it takes years to reach this level of mutual trust and understanding between partnering organisations. This also means that out of their whole portfolio of partnerships, organisations will probably only have this high degree of engagement and commitment with a few partnerships.

THE CASE OF CHANGING STRATEGIC ALIGNMENT: PLAN - AKZONOBEL

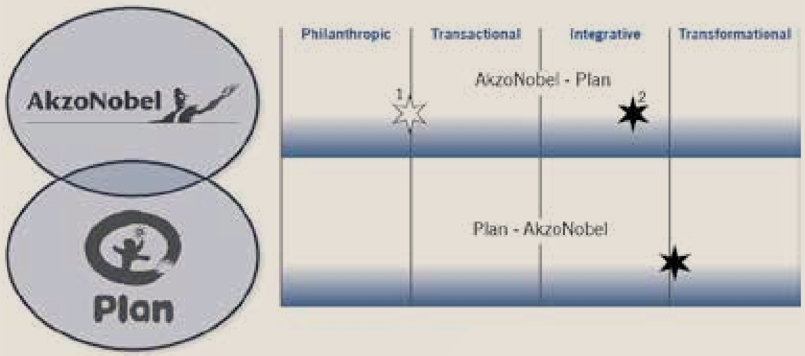
Around 1995, AkzoNobel and Plan started a partnership in a so-called Education Fund. At that time AkzoNobel only provided financial assistance, for educational projects and programmes in developing countries. Plan NL helped the company in making decisions about which projects to support. After the FIFA World Cup in 2014, AkzoNobel and Plan, together with Amsterdam Arena Advisory and various other partners, joined forces to enhance social development in the Natal region in Brazil. AkzoNobel took the lead in organising vocational training in painting. Plan NL took the lead in recruiting deprived youngsters to be trained as painters. AkzoNobel and Plan NL both participated on the Board of this renewed Education Fund.

Over the years the relationship changed considerably. The partnership between AkzoNobel and Plan started as a philanthropic partnership focused on charitable giving. In this stage (level 1), Plan clearly had greater expectations of the partnership than AkzoNobel. This created alignment problems. Plan could do two things: either lower its expectations of the partnership and be satisfied with a sponsoring relationship, or try to step up the engagement on both sides.

The second approach was chosen. As a consequence, the partnership has moved towards a more transformative stage in recent years. The partnership evolved on the basis of co-creation in which decisions are jointly taken by the Board of the Education Fund with implementation in the project being jointly organised. Both parties continuously reflect on further development of the partnership and its programmes. Differences in the approach of each organisation are not considered problematic. The partnership has built-up mutual trust and is now seen as a good arena for (critical) dialogue and learning. For instance, Plan uses this arena to discuss the need for more focus on girls' empowerment. AkzoNobel uses this arena to stimulate Plan to prove their added value to the partnership (based on data). Effectively, a more functional perspective on partnerships has replaced charitable giving.

The degree of engagement of both parties has become quite high and strategic. The partnership is becoming an essential part of the core (Human Cities) strategy of AkzoNobel, which aims at improving, energising and regenerating urban communities across the world. The partnership programme is increasingly connected to the core business of AkzoNobel. The partnership is equally important for Plan NL as it increases its impact. AkzoNobel has proven to be a stable partner and financial resource for many years. The change in the relationship has also been accompanied by internal changes in Plan. Corporate partnerships are no longer part of Plan's fundraising department, but are now integrated in the programme department. Corporate partners are no longer seen as purely philanthropic.

FIG 3.4 *The degree of engagement*



Source: Partnerships Resource Centre (PrC), 2015

3.5 HOW CAN COMPANIES CONTRIBUTE TO SPECIFIC SDGS?

As is the case with all wicked problems, companies can consider the SDGs as a threat or an opportunity. The strategic assessment critically depends on the way companies can internalise the SDG into their business model. Section 3.4 set out that two types of internalisation are relevant in this context: (1) internally, in their functional areas of management; and (2) externally, in how they create and manage a portfolio of strategic partnerships. These efforts define the extent to which companies can move beyond reference to the SDGs as intention, into actually implementing them.

As already argued in Part I, there is no lack of intention. 87 percent of a sample of Chief Executive Officers (CEOs) worldwide believes that the SDGs provide an opportunity to rethink approaches to sustainable value creation, while 70 percent of them see the SDGs as providing a clear framework to structure sustainability efforts (Accenture & UN Global Compact, 2016). And the numbers are growing (Hoek, 2018). Next to the individual choice of companies to make a particular selection of SDGs 'material' for themselves – which will be discussed in the next section – one can also consider in more general terms how companies can contribute to specific SDGs.

One particularly interesting approach to this question is presented through the so-called SDG Compass, a tool developed by the Global Reporting Initiative (GRI), the World Business Council for Sustainable Development (WBCSD) and the UN Global Compact. The SDG Compass has been compiled based on feedback from companies, governmental agencies, academics and civil society organisations in three consultation rounds. The resulting selection of angles spells out specifically how business can contribute to each of the targets. The Compass provides examples of key business actions and makes a number of 'key tools' available. The SDG Compass is aimed at helping companies to see the business case of SDGs and to integrate them into their corporate strategy. But it also demands from companies that they take a holistic approach to aligning every part of their business to the SDGs (Business and Sustainable Development Commission, 2017). The overview below provides a summary of their main assessments.

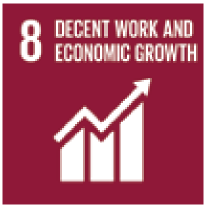
TABLE 3.4 *Key business actions and indicators for companies to contribute to the SDGs*

SDG	How can corporations contribute?
1 NO POVERTY	• Availability of products and services for those on low incomes • Earning, wages and benefits • Economic development in areas of high priority • Access to quality essential health care services • Access to water, sanitation, hygiene • Availability and reliability of electricity • Non-discrimination **Examples of Key Business Indicator:** • Average wage of workers per gender, type of contract • Pricing strategies: needs based affordability targeted at the bottom of the pyramid (e.g. access to medicine)
2 ZERO HUNGER	• Healthy and affordable food • Food labeling, safety and prices • Sustainable sourcing • Genetic diversity of farmed and domesticated animals • More equitable labour practices in the supply chain **Examples of Key Business Indicator:** • Report percentage of sustainably sourced volume, according to production standards such as Fairtrade
3 GOOD HEALTH AND WELL-BEING	• Occupational health and safety • Access to medicines • Access to quality essential health care services • Air quality • Water quality **Examples of Key Business Indicator:** • Number and type of injuries, occupational diseases, lost days, and absenteeism; work-related fatalities
4 QUALITY EDUCATION	• Education for sustainable development • Availability of a skilled workforce • Capacity building • Indirect impact on job creation • Youth employment **Examples of Key Business Indicator:** • Average hours of training per year per employee by gender, and by employee category
5 GENDER EQUALITY	• Equal remuneration for women and men • Diversity and equal opportunity • Access to sexual and reproductive health-care services • Workplace violence and harassment • Women in leadership • Childcare services and benefits **Examples of Key Business Indicator:** • Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation
6 CLEAN WATER AND SANITATION	• Sustainable water withdrawals • Improved water quality through effluent treatment • Improved water efficiency through application of 5R principles: reduce, reuse, recover, recycle, replenish • Equal, affordable, and safe, access to water, sanitation, and hygiene for employees and communities • Protection of water-related ecosystems and biodiversity **Examples of Key Business Indicator:** • Total water discharge by quality and destination



- Electricity access
- Electricity availability and reliability
- Renewable energy
- Energy efficiency
- Infrastructure investments
- Environmental investments

Examples of Key Business Indicator:
- Energy consumption within the organisation



- Employment
- Economic inclusion
- Non-discrimination
- Capacity building
- Availability of a skilled workforce
- Elimination of forced or compulsory labor

Examples of Key Business Indicator:
- Average working hours per week, including overtime



- Infrastructure investments
- Access to financial services
- Environmental investments
- Research and development
- Technological legacies

Examples of Key Business Indicator:
- Development and impact of infrastructure investments and services supported



- Availability of products and services for those on low incomes
- Access to financial services
- Equal remuneration for women and men
- Capacity building
- Diversity and equal opportunity
- Economic inclusion

Examples of Key Business Indicator:
- Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation



- Access to affordable housing
- Infrastructure investments
- Sustainable transportation
- Access to public spaces
- Sustainable buildings

Examples of Key Business Indicator:
- Type and number of sustainability certification, rating and labeling schemes for new construction, management, occupation and redevelopment



- Sustainable sourcing
- Resource efficiency of products and services
- Materials recycling
- Procurement practices
- Product and service information and labeling

Examples of Key Business Indicator:
- Percentage of materials used that are recycled input materials

13 CLIMATE ACTION	• Energy efficiency • Environmental investments • GHG emissions • Risks and opportunities due to climate change **Examples of Key Business Indicator:** • Scope 1, 2 and 3 greenhouse gas emissions
14 LIFE BELOW WATER	• Marine biodiversity • Ocean acidification • Environmental investments • Spills • Sustainable sourcing • Water discharge to oceans **Examples of Key Business Indicator:** • Total water discharge by quality and destination
15 LIFE ON LAND	• Deforestation and forest degradation • Genetic diversity of farms and domesticated animals • Land remediation • Landscapes, forest management and fibre sourcing • Mountain ecosystems • Natural habit degradation • Terrestrial and inland freshwater ecosystems **Examples of Key Business Indicator:** • % of total volume of wood/fibre/products intake certified
16 PEACE, JUSTICE AND STRONG INSTITUTIONS	• Effective, accountable and transparent governance • Compliance with laws and regulations • Anti-corruption • Public access to information • Physical and economic displacement • Inclusive decision making **Examples of Key Business Indicator:** • Confirmed incidents of corruption and actions taken
17 PARTNERSHIPS FOR THE GOALS	No business indicators or themes and tools identified

Source: Based on SDG Compass; https://sdgcompass.org/sdgs

The SDG Compass overview in Table 3.4 shows a considerably wider selection of topics to be attributed to key business action, than defined through the 169 UN sub-targets (Section 2.5). Yet a closer reading of the business opportunities as defined by the SDG Compass also shows that they focus largely on relatively narrow and instrumental aims that can primarily benefit from the technological or efficiency-oriented contributions of companies. The examples of key business indicators define measurable entities, which do not necessarily cover the really wicked problems under that target.

Take for instance SDG11 and SDG15. A key business indicator relates to certification, rating and labelling schemes. Although not unimportant, this indicator provides a relatively marginal indication of the actual ‘fairness’ and ‘inclusiveness’ of the city and the value chain, with a largely obscure indication of impact on the outcome level. Also, research on the effectiveness of labelling schemes indicates that their effectiveness in addressing the root causes of the problem – child labour, ecological degradation, unsafe working conditions – is relatively limited (Glasbergen, 2018). The list in Table 3.4 also illustrates that there is still a large degree of ambiguity (knowledge, predictive and intervention – see Section 2.4) that surrounds most SDGs. Measurement markers and concrete business practices still have to be developed. Many of the identified contributions can also be linked to other SDGs and require partnerships. The SDG Compacts website shows that the actual implementation by companies of specific SDGs is not yet covered in any detail. The cases provide some examples, but without any claim of ‘best practice’ or ‘how to do it’.

3.6 HOW DO COMPANIES CONTRIBUTE TO THE SDGS AT PRESENT?

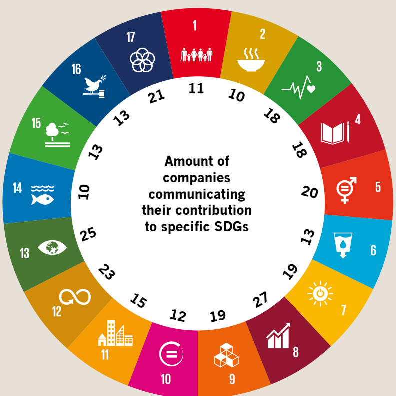
As the SDG agenda was only introduced in September 2015, we are still in the first stage of adoption of the SDGs by companies. This makes it difficult to assess exactly how companies are actually implementing the SDGs, let alone to deduce which approaches are successful or not. Most overview studies have covered the intent of corporate leaders and the way their companies cover the SDGs in their public statements and annual reports. PricewaterhouseCoopers (2016) for instance performed a study to assess in what way companies are making a positive contribution to the SDGs, by scoring the quality of corporate reporting on the SDGs. PwC found that about 44% of the companies they assessed included at least one explicit statement on the SDGs.

PwC also found that 64% of the companies still discussed the topics relating to the SDGs in very general terms; only 13% reported on specific SDG sub-targets. The most popular SDGs to be reported on were SDG13 on climate action, SDG7 on affordable and clean energy and SDG5 on gender equality. SDG reporting appears most mature on familiar themes. The least popular SDGs appear to be SDG14 on life below water, SDG15 on life on land and, surprisingly, again SDG5 on gender equality, although on a different indicator. The study by PwC stressed that simply mentioning the SDGs is not enough. Companies need to take a truly long-term view on integrating the SDGs into corporate strategies, which holds that those SDGs that have a close link to the company’s core operations should be identified. Companies that strategically bring together concrete actions and goals and show strong leadership, will find ways to truly increase positive and decrease the negative impact, and thus contribute to the SDGs (PwC, 2016).

A FRONTRUNNER NETWORK

RSM Master student Colinda van Brummelen (2017) focused in on a specific network of companies: those that constitute the Global Compact Network in the Netherlands. These companies have subscribed to the general ambition of the UN to support sustainability as formulated at the start of the millennium, so they can be considered frontrunners in supporting the UN SDG initiative.
Her research was executed in 2017, a year later than the PwC study. Of the total 106 companies in the GCNL network, around 65% did not report on their contributions to individual SDGs, while 35% did. The real frontrunners are five companies that report to contribute to all the SDGs, with (short) explanations on how they try to contribute to these goals.
Figure 3.5 shows the scores. Van Brummelen also found, however, that the state of play that this figure shows is rapidly changing. More and more companies are embracing the SDGs.

FIG. 3.5 *Comparative SDG efforts in Dutch frontrunner sample (2017)*



Source: Van Brummelen, 2017

But these patterns still do not reveal much on specific intentions of companies. Slowly some research is maturing on how, in particular, multinational corporations are embracing the SDGs.[11] Authors stress the unique opportunity for companies to use the SDGs as a framework for improving their CSR engagement in line with changing societal expectations (Schoenherr et al, 2017), yet it is also noted that research on companies and SDGs is still relatively limited (Kolk et al, 2017). There is a clear need for case studies on corporate strategies and their effectiveness. There is also a clear need for a framework that goes beyond merely listing the SDGs.

Recent exploratory research can already reveal a bit more on the intentions of companies: [1] by going into how companies come to prioritise sub-targets, and [2] by looking at the way companies try to link various SDGs, thus creating a strategic nexus between their corporate strategy and the related SDGs.

11 A recent edition of "Transnational Corporations' – a journal of UNCTAD – collected a number of papers and set out an agenda for further research on the SDGs.

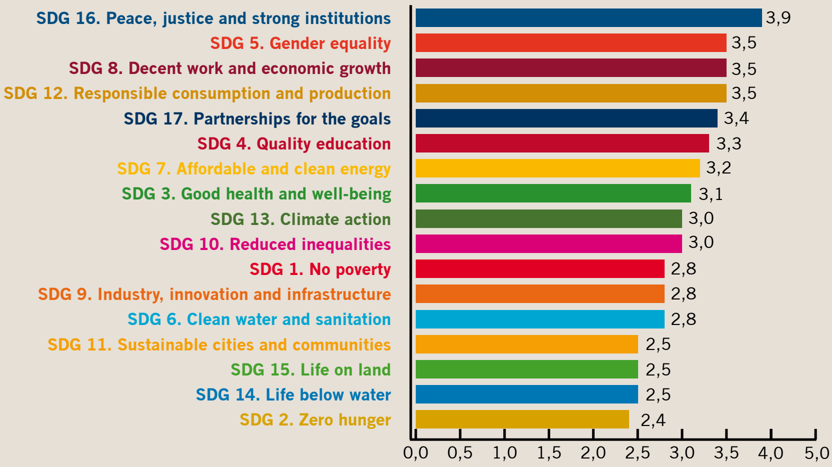
Ad [1] SDG Sub-targets

In a pilot study on the strategic implementation of the SDGs, we focused in on the sub-targets of the SDGs in order to figure out (a) whether some SDG targets were more interesting for corporations than others, and (b) what the selection of specific sub-targets entails for the kind of basic orientation companies embrace: avoid doing harm (within their own sphere of influence; level 1 and 2) or doing good (beyond their sphere of influence which requires more partnering; level 3 and 4).

In order to better understand what type of SDGs were prioritised, a survey amongst corporate representatives was executed in 2017 (Van Zanten and Van Tulder, 2018). In order to move beyond relatively superficial or socially desirable answers (as many consultants' reports had already done), the study concentrated on specific sub-targets of the SDGs that could be characterised as aiming at 'doing good' or at 'avoiding harm' and that are most relevant to companies. These sub-targets are more or less equally spread over all the SDGs, so their combined scores could still be accumulated per SDG (Figure 3.3).

The survey received responses from responsible managers from 81 'Global 500' companies headquartered in Europe and North America. These two regions include most of the frontrunner multinationals engaged in sustainable development. The respondents' scores on each of the SDG's underlying targets could be aggregated, allowing the calculation of a mean score of the extent to which companies contribute to each of the 17 SDGs.

FIG. 3.6 *Extent to which companies want to contribute to specific SDGs (N = 81)*



Note: the mean scores are averages (weighted) of the scores on individual targets belonging to the SDG (scale: 1 - not at all; 2 - slightly; 3 - moderately; 4 - substantially; 5 - extremely)

The survey results of this research (Van Zanten and Van Tulder, 2018) reveal the nature of the first steps in planned corporate contributions to each of the targets. The remarkable priority score for SDG 16, reveals that companies acknowledge that they cannot do business in 'a society that fails'. Yet they envisaged their contribution to this goal primarily through philanthropic efforts. Most of the targets that multinationals actively and strategically engage with are those that they can implement throughout their (value chain) operations and which are thus in their direct sphere of influence. More importantly, on a statistically significant level, it was found that companies in this stage of the SDGs primarily focus on those SDG sub-targets that help them avoid doing harm. It was found that European firms engage with substantially more SDG targets than American companies. This makes them more supportive for the integrative ambitions of the SDGs. Companies in sectors with greater negative social and environmental externalities – such as extractive industries, transport, and Fast Moving Consumer Goods – are more involved with SDG targets that help them avoid doing harm, than companies in sectors with lesser externalities (including finance, professional services, and ICT). In particular for the categories of 'doing good' sub-targets, the need for cross-sector partnerships was deemed critical by almost all companies, while at the level of 'avoiding harm' much less willingness to partner exists.

So the patterns of early engagement of companies in the SDGs, seem to point at a relatively conservative use of the SDGs as a future-oriented agenda. The potential of the SDGs to move away from 'avoiding harm' (short-term loss and cost minimisation) and to be used to 'do good' (and reap longer-term benefits) is still not very well served. This finding does not imply that companies do not want to use the SDGs as a way to redirect their future business models towards the needs of society; it primarily shows how difficult it still is to use the transformational potential of the SDGs.

Ad [2] Portfolio and nexus challenge

Another important dimension of the strategic use of the SDGs is the degree to which companies try to synergistically combine different SDGs. This reveals the 'nexus challenge' that was discussed in Part I, referring to an integrated approach that focuses not merely on individual SDGs and sub-targets, but which takes the interrelatedness and interdependencies of the entire system (or relevant parts of it) into consideration so as to reduce trade-offs and create and leverage synergies. At the strategic level, the nexus challenge boils down to a carefully-thought-through composition of the SDG portfolio, in which companies (try to) align relevant SDGs with their corporate strategies. Table 3.5 shows the result of a first exploratory inventory of some of the most explicit companies around the world. What becomes clear from these early observations is that an increasing number of companies show great ambition. These frontrunner companies often link their strategy formulation with a *portfolio* of SDGs.

TABLE 3.5 *An increasingly connected SDG portfolio: frontrunner elaborations*

Selected company statements		Related SDG portfolio
IKEA	Strives to make all home furnishing materials renewable, recyclable or recycled and to turn waste into resources. Develop reverse material flows for waste material, ensure key parts of range of products are easily recycled, and take a stand for a closed loop society.	SDG7, 12, 13
Safaricom	We will empower the business to fully understand, embrace and deliver on SDGs and ensure Safaricom remains a local and global leader in this area.	SDG1, 2, 6, 7, 8, 12, 13, 14
Bayer	Motto: 'Science for a better Life'. Bayer has introduced "high-quality food for all" as a central element of its sustainable development programme [...] linked with sustainable agriculture. As a Life Science company [...], based on scientific findings, we develop innovative products and solutions to improve people's quality of life through disease prevention.	SDG2, 3 With significant contributions to: SDG1, 4, 5, 8, 9, 10, 13, 15, 17
GAP	Employ more women to improve gender equality, which is a global issue that Gap believes is a precondition to the elimination of poverty.	SDG1, 5
Interface	Mission zero: moving from negative impact to positive impact; 87% of all energy used at all manufacturing comes from renewable sources.	SDG7, 8, 12, 13, 14
Enel	To Enel a shared value approach is key to opening new business opportunities by addressing social and environmental challenges in all phases of the value chain.	SDG4, 7, 8, 13
YES Bank	Yes Bank supports financing to women entrepreneurs in India to drive future economic growth and job creation.	SDG1, 5, 10, 17
NIKE	Any business doing business today has two simple options: embrace sustainability as a core part of your growth strategy or eventually stop growing.	SDG6, 7, 8, 12, 13
Moyee coffee	We don't sell coffee. We sell impact. Fair chain coffee production based on three impact dimensions: economic, social and ecological.	SDG1, 8, 10, 11, 12
Huawei	Enable full connectivity and create a more sustainable future, while delivering innovative ICT solutions.	SDG3, 9, 11, 13
Alibaba Group	Our strategy is to sell goods from urban areas to villages, as well as help farmers sell farmer products to people living in the cities. This we believe will have a huge potential in the future.	SDG10, 11, 17
TESLA	To accelerate the advent of sustainable transport by bringing compelling mass market electric cars to markets as soon as possible.	SDG7, 9, 17
Wakawaka	Generating impact through market-based solutions: help people save money and spend their savings on life-improving solutions.	SDG3, 4, 7, 10
KPN	KPN believes in progress, for humans and for the environment. That's why we've committed to the SDGs. We are focusing on the three goals where we can have the most impact with our products and services.	SDG9, 11, 12

Based on: Hoek, 2018; company reports.

Yet there is also a noticeably large variety in strategic legitimations of SDG prioritisations. Not all companies embrace those SDGs – and seemingly evident combinations of SDGs – that might be expected from them, given the obvious link with their core business activities. IKEA for instance – with a business model that is heavily dependent on a disintegrated value chain of numerous suppliers – combines SDG7 and 12, which primarily present the demand side of the value chain. But the company does not (yet)

prioritise those SDGs that define the supply side of the value chain, such as SDG1 and SDG10. Other disintegrated value chain companies like Nike show comparable patterns (although with a much broader portfolio linked to general growth strategy), whereas 'smaller' value chain-dependent companies like Moyee (a social enterprise) adds exactly those elements to its portfolio, while skipping attention for climate change.

Other social enterprises (like Wakawaka) found their 'niche' through a particular integration of value propositions before the SDGs materialised, and are now able to frame this as a nexus between SDG3, 4, 7 and 10 – which is not a nexus that is embraced by many other companies. GAP, another value chain-oriented company, links SDG5 and 1; GAP historically was one of the first companies in the world that tried to raise the working conditions for their (often female) suppliers and communicate this to their (often female) customers.

Almost all big companies embrace SDG13 (climate), but aim primarily at limiting waste or lowering ecological damage and not necessarily at combining SDGs and business strategy in a more proactive portfolio of related activities. Many tech companies are more solution-oriented and supply driven: Huawei searches for innovative ICT solutions, KPN aims at optimising the societal contribution of its (existing) products and services, Bayer aims at science for a better life. To really succeed, these ambitions also need to be coupled with a demand/need approach that is partly covered by SDG12, which these companies do not yet explicitly embrace. Finally, we can see that the explicit reference to SDG17 is still rather bleak with many companies. This can partly be explained because of the lacking business indicators for SDG17 in the SDG Compass (Section 3.5).

Internalisation of the SDGs

Making the SDGs 'material' not only necessitates external alignment, but in particular requires companies to link the SDGs with core activities and internal change processes. The business model literature refers to this as 'business model innovation'. Since the finalisation of the SDGs, many companies have started to use the 17-goal framework to enable a systematic discussion on business model innovation approaches. Take four Dutch frontrunner companies as an example: Philips, DSM, Unilever and AkzoNobel (Table 3.6). All four companies have been leading in areas of sustainability for a long time, a fact highlighted by their multi-annual status on the Dow Jones Sustainability Index as 'super-sector leaders', for instance. This implies that they are leading all other global companies in their sector. These frontrunners also want to sustain leadership in their respective sector, which they try to do in different ways.

TABLE 3.6 *Materiality of the SDGs and organisational alignment: four Super Sector Leaders*

Company	SDG priority (major action)	Alignment with:	Logic as formulated by company
Philips	SDG3, 12 and 13	Strategy and innovation: Innovation hub strategy (pilots in Africa); Community Life Centres; NGOs in health	We aim to improve the lives of 3 billion people a year by 2025 and have 95% of Philips revenue linked to the SDGs.
Unilever	All SDGs, but in particular 2, 3, 5, 6, 12 and 13	Sustainable Living Plan; supply chain and marketing: sourcing of raw materials and the use of brands by consumers	Grow our business, whilst decoupling our environmental footprint from our growth and increasing our positive social impact. By 2020 Unilever aims to help more than a billion people improve their health and hygiene to reduce the incidence of life-threatening diseases like diarrhea. Handwashing, oral care and nutrition are major drivers.
DSM	SDG2, 3, 7, 12 and 13	Internal R&D aims and value chain; general partnering approach to 'accelerate contributions to the other 16 SDGs'.	Addressing the challenges of nutrition & health, climate & energy and resource scarcity drive our business and innovation strategies. We believe that our expertise in health, nutrition and materials position DSM well to actively contribute to the Sustainable Development Goals (SDGs)
AkzoNobel	SDG11, 17, plus: SDG7, 12 and 13	Generic and supply chain strategy	Through our Planet Possible sustainability agenda and our global Human Cities initiative, we aim to be part of the solution.

Source: Based on company reports.

All four companies initially considered all 17 SDGs in internal discussions involving strategic departments, and sometimes suppliers as well. Most of them linked this directly to their innovation strategy and/or towards their suppliers and communities. On their website, AkzoNobel formulated this logic as follows:[12] "An advantage for companies putting the SDGs at the heart of what they do is they can discover new growth opportunities and reduce their risk profile across the value chain". The other side is also covered: according to AkzoNobel the SDGs mean companies will increasingly "pay for the cost of their negative impact on the environment and society, emphasising the growing importance of radical resource efficiency. New business opportunities will also open up for companies that develop innovative solutions for tackling the challenges that the SDGs represent."

In particular Philips and Unilever also set concrete (material) global sustainability ambitions at the societal level. Philips[13] aims to create access to health for 3 billion people by 2025; Unilever[14] aims to help more than 1 billion people 'take action to improve their health and well-being' by 2020. Philips identified two basic SDGs before it

12 https://www.akzonobel.com/about-us/how-we-operate/position-statements/un-sustainable-development-goals (visited 21 april 2018)

13 https://www.philips.com/a-w/about/investor/philips-investment-proposition.html

14 https://www.unilever.com/sustainable-living/improving-health-and-well-being/

split up into two companies, one for health and one for lighting. Health is clearly related to SDG3, while lighting is easiest to link to SDG12. The company is, particularly in the health area, broadening its value proposition; not only to deliver to more consumers, but to actually move into the area of 'primary health care', for which the products and services that the company had previously developed do not suffice. With this particular SDG strategy, Philips began to engage in a complete reengineering of its business model, with pilots in Africa. Unilever has been one of the frontrunners in applying integrated value chain analysis, but primarily in terms of ecological considerations (SDG13); but now its '5 Levers for Change' campaign explicitly tries to link the SDGs to its marketing and value chain strategy. Unilever embraces the SDGs as "an opportunity to unlock trillions of dollars through new markets, investments and innovation" but also acknowledges that the company has to challenge their current practices and "address poverty, inequality and environmental challenges."

DSM and AkzoNobel have been slightly more generic and responsive in their approach. DSM[15] identified three key areas in which the company can drive sustainable markets: nutrition, climate change and circular economy. DSM linked its ambitions to the innovation strategy and organised internal meetings around all SDGs to explore those future oriented areas where the company can have the greatest innovative leverage. AkzoNobel used the SDG Compass to see where the company was already making a contribution. This exercise revealed that the company contributes, in varying degrees, to all the SDGs through their operations and supply chain, products and an initiative entitled the 'Human Cities initiative'. In a process in which they also engaged their primary suppliers the company prioritised those SDGs where we could have a particular impact through existing activities. As a result, the company selected SDG7: Affordable and clean energy; SDG12: Responsible consumption and production; and SDG13: Climate action. But their main focus areas are slightly more general than the three other companies: SDG11 (Sustainable cities and communities) and SDG17 (Partnerships for the goals).

All four CEOs of these companies are actively participating in platforms and networks to get the message across. Paul Polman talks about the 'license to lead' of Unilever in societal change. Polman also refers thereby to a particular nexus challenge: the food, water, energy and climate nexus. Unilever tries to develop intervention models alone and together with other stakeholders to enhance the performance on this nexus in particular.

All four companies also acknowledge that their international scale and innovative capacity – the characteristics of an incumbent firm – are essential qualities to provide solutions to urgent societal challenges. An active support of the SDGs helps corporate leadership to align internal and external stakeholders. Whether they will succeed in this ambition and how fast, is still unknown. But all four companies have reinvented themselves several times over their more than 100 year histories, which in any case makes them relevant benchmarks for measuring the success of a reversed materiality approach based on the SDGs.

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15 https://www.dsm.com/corporate/sustainability/vision-and-strategy.html

3.7 A STRATEGIC FRAMEWORK: HOW CAN COMPANIES BETTER CONTRIBUTE TO THE SDGS?

The analysis in this Part has revealed that the SDGs pose a promising, yet challenging agenda for corporations. For smaller companies the challenges are considerable, but also for big corporations – which often have clearer stakes in the success of the SDGs – walking the talk is not easy. At all levels of thinking and implementation companies are faced with complex decision-making challenges, most of which they cannot solve alone.

In order to break through the barrier of a relatively passive use of the SDGs as a framework for a future-oriented business case, companies need to work on two critical 'alignment' challenges: (1) the *internal alignment* challenge, which requires prioritising SDGs and making them more material in strengthening the internal and international organisation of the company; and (2) the *external alignment* challenge, which implicates the creation of a portfolio of collaboration agreements (partnerships) that can help the company move ahead. The aim of internal and external alignment processes is to create a *strategic fit* between the corporate ambition and the SDGs in order the enhance the license to operate (3), in which success strongly depends on a smart, sequenced and *integrative implementation strategy* (4).

[1] Reversing materiality

We saw that the potential of the SDGs will only materialise if companies can align their strategies with the SDGs in a forward looking manner. Only then will they contribute to a "universal language to proactively act, inspire and solve tomorrow's global challenges" (Ernst & Young, 2016). The biggest challenge thereby remains the move from theory and intention to practice and implementation, and to move from a reactive/responsive attitude to an active/proactive attitude in which negative as well as positive externalities are taken into account. This means that the SDGs should be embedded in strategic activities, and not only used for philanthropic activities (without links to the core business of the company).

It can be argued that the SDGs better inform a company's materiality analysis than is often now the case with the existing practice of materiality approaches and stakeholder engagement (Section 3.3). So using the SDGs as a guide 'reverses' the materiality approach: from one aimed at present problems to one aimed at future opportunities. The SDGs consequently serve as a lens in goal-setting that is also embraced by other actors in society. This can consequently create a unified sense of priorities and purpose which facilitates communication with stakeholders. The engagement of big companies with the SDGs, however, still takes place in a climate of considerable distrust and skepticism as to the real motivations of companies. Are they willing to walk the talk? The 2017 Edelman Trust Barometer[16] shows that 75 % of the general public around the world agree that "a company can take specific actions that both increase profit and improve the economic and social conditions in the community where it operates." Nevertheless, recent research from Corporate Citizenship[17] (2017) shows that businesses have the tendency to use the SDGs for communications, but that they neglect the strategic implications. Moreover, whilst 99% of their respondents said that their company was aware of the SDGs, 20% indicated that they had 'no plans to do anything about them'.

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16 https://www.edelman.com/global-results/

17 https://corporate-citizenship.com/sdgs/

Companies that 'talk but don't walk' reinforce the idea of an 'incumbent's curse' – too big to fail, but also too conservative to really take responsibility to go beyond 'business as usual' and lead the change. At the level of intentions, we have seen that there is some reason for (modest) optimism. The Business & Sustainable Development Commission (2017) for instance sees evidence that so-called 'radical incumbents' arise – big and leading companies that talk *and* walk. Sometimes leading companies even walk without talking, because it has been shown that it is risky to reveal your future strategic ambition too much, even if they would help the company in revealing a positive SDG profile. The Commission observes that 30 Global Goal 'unicorns', as they call them, already exist with market valuations of more than US$1 billion. They shape the SDGs by more actively deploying five new business models: sharing, circular, lean service, big data and social enterprise. They have made the SDGs material by integrating them into corporate strategy as well as by engaging others in their strategy to create an enabling environment. The four examples of Dutch frontrunner companies (Section 3.6) provide some examples of relevant efforts.

The SDGs, when used to broaden the materiality approach as an input for strategic planning and innovation, require that companies move beyond their previous selection of material issues and do not merely 'repackage' old priorities to fit the SDG agenda. This almost always requires a more specific 'societal goal' and mission statement with clear markers and ambitions for the relatively short term – i.e. the next 2-5 years ultimately. The challenge is not to pick the easiest, most positive or obvious goals, but to select those that are material to the business (PwC, 2015). By prioritising the right global goals in their strategy agenda, companies are not just able to anticipate the disruption that is likely to appear in the future, but also to shape the direction of the disruption to their competitive advantage (B&SDC, 2017).

[2] The partnering challenge

The more companies are able to define their internal priorities and act upon them, the more they can line up with partners across their own sector as well as with non-market parties, and the more they are able to build an enabling environment that can create radical or disruptive innovation (Van Tulder et al., 2014). In the latter case, coalitions of parties shape new institutions (new rules of the game) that can speed up the spread of disruptive sustainability tremendously, in particular when supported by (big) incumbents. So, the second way to enhance the strategic relevance of the SDGs is to engage in a proper portfolio of cross-sector and intra-sectoral coalitions or partnerships. The SDGs reiterate time and again that they cannot be achieved without partnering up. It is the fifth basic principle of the SDGs, next to People, Planet, Prosperity, and Peace (Figure 1.3). But there is a 'jungle' of global and local platforms, roundtables, initiatives, covenants, and partnerships that companies can choose from.

In previous research, we not only found that the 100 largest global companies have an average portfolio of 18 cross-sector partnerships aimed at addressing a variety of sustainable goals; but we also concluded that the portfolio of many of these companies were not (yet) very focused. Many of the partnerships were quite ad hoc and/or not linked to core activities of the company. If companies want to manage their partnership portfolio in a more strategic and sustainable manner, they are faced with a number of internal and external alignment considerations that define whether the partnership presents a good 'fit' and can contribute to a pro-active strategy that enhances the international corporate responsibility (ICR) strategies of the company. Companies can decide to

create partnerships with global or with local stakeholders, depending on their strategic intentions. Partnerships with international NGOs like WWF or Unicef exemplify the ambition of internationally active companies to scale partnerships. If such a partnership is successful, they are easier to scale and replicate because the partners at both sides of the table are international organisations. Strategic alignment with NGOs has the potential to create efficiency and scale, partnerships with local NGOs can enhance legitimacy. But the whole portfolio of partnerships, in the end, defines the effectiveness of these partnerships. We found that effective partnerships, like all successful strategic partnerships, require considerable formation time (PrC, 2012). It does not necessarily require trust, but rather trust-building and mutual respect. We also found that the delegated individuals that negotiated on behalf of the partnering organisations play an important part. A click between participants is needed, which occurs most easily if all the participants realise that they are part of the problem as well as part of the solution: it creates a common ground to really make the partnership work, but also to learn from each other.

[3] Creating a strategic 'fit' and license to operate

A new management area is needed: strategic partnership portfolio management (PrC, 2010). This management discipline contains some internal and external alignment dimensions that make the portfolio more or less fit-for-purpose, depending on the materiality of the related issues and partners that the partnership covers. The strategic challenge for companies relates to the strategic fit of the partnership portfolio to the issues the company is facing, along four strategic decisions areas: (1) what to produce, (2) with whom to produce, (3) where to produce it, and (4) what next to produce. Scoreboard #3 consequently considers four areas of management where a good strategic fit between 'materiality' and 'portfolio' needs to be established, in order to develop a good strategy which not only contributes to greater trust, but also helps the company create a *variety of licenses* to operate that are needed to break through a passive use of the SDGs:

- **[A] Have a license to exist; issues related to the portfolio of products and services**: these issues define whether a company has a principle license to exist and operate on the basis of its basic activities (no controversial products like tobacco). The fit is poor when there are no partnerships, or partners are not linked to the core activities of the company (cf. Kraemer and Van Tulder, 2012).

- **[B] Get a license to operate; issues related to key stakeholders**: how the company is positioned in networks of primary and secondary stakeholders defines whether the company is able to 'get' a license to operate. Most of the issues that companies face in this realm are related to the kind of negative externalities the company creates. The fit is good, when not only 'friendly' stakeholders are involved, but also those stakeholders that suffer from the negative externalities of the company.

- **[C] Sustain and scale a license to operate; issues related to the portfolio of countries in which the company is selling or sourcing**: this dimension defines the extent to which the company can 'sustain' a license to operate over a longer period and scale this license by moving into more countries. In particular big companies can and have to spread their supply chains and marketing activities over a large number of countries. Contributing to the SDGs also requires companies to consider their global license to operate, yet there are CSR risky countries that can jeopardise the reputation of a company and create barriers to really moving to a higher level of

sustainability (Van Tulder, 2018). There is a good fit in case the partnership portfolio is not only located in the 'home country' of the company, but also involves partners in the other (host) countries in which the company operates.

- **[D] Acquire a license to experiment; issues related to a future license to operate**: the portfolio of future-oriented activities can provide a company the license to experiment as long as stakeholders support that ambition and the added value of the approach. The fit is good, if those stakeholders are engaged in a solid partnership that shares the future value proposition of the company.

TABLE 3.7 *Scoreboard #3: Partnership portfolio fit*

Strategic areas (linked to various licenses A-D)	**[a] Materiality of related issues:** **low high** <--------------------------->	**[b] Partnership portfolio?** **Narrow broad** <--------------------------->	**Fit? [a] – [b]** **poor medium good** <--------------------------->
[A] Core business: products and services	Which topics are related to core businesses? What sustainability risks are involved?	Intra-sectoral partnerships or cross-sector partnerships: on related topics	<--------------------------->
[B] Key stakeholders: clients; government;	Who are considered prime stakeholders and are involved in stakeholder dialogues? (stakeholder salience)	Friendly stakeholders; partnership configuration (public-private; profit-nonprofit); coalitions of willing or needed	<--------------------------->
[C] Countries: location of sources and markets	Nature or CSR risks related to the country portfolio of companies	Degree of local and global representation (international NGOs and international governments)	<--------------------------->
[D] Future businesses	Prioritised SDGs : nexus challenge and relationship with future core activities	Alliance with relevant stakeholders as co-creation of future opportunities: nature and number of friendly and critical stakeholders represented	<--------------------------->

The combined scores on these four dimensions, define the extent to which a company can and should search for partnerships. For instance, if a company is faced with a 'poor' portfolio of activities, it becomes important to create a broad alliance of partners in the same sector to address these issues. In case companies are confronted with strong and powerful stakeholders, they have to search for alliance partners. An increasingly important consideration in this respect is the question of whether the partnership can be considered a 'coalition of the willing' or a 'coalition of the needed.' If the partnership includes willing parties that are not necessarily needed, we can expect a lower effectiveness of the partnership in addressing the issue (an SDG for instance). The leadership challenges related to partnering processes, in particular, become broader. Here, leadership is not just aimed at vision or strategy but also at the transformation (of the whole sector or the issue) and connected and empathic to other stakeholders. This leadership style is dubbed 'connected leadership'.

[4] Sequencing: SDG alignment in seven steps

The concept of reversed materiality helps companies to, in theory, provide a credible and accurate view of their ability to create and sustain value. It can inform company strategy and decision-making as it shows the areas where it has most substantial impact. In practice, however, issue prioritisation is often a reactive practice where companies choose to report on the relatively 'easy to solve' topics or only on those subjects that have been negatively pointed out by stakeholders. This seriously lowers their ability to be really (materially) integrated into the strategic planning of companies.

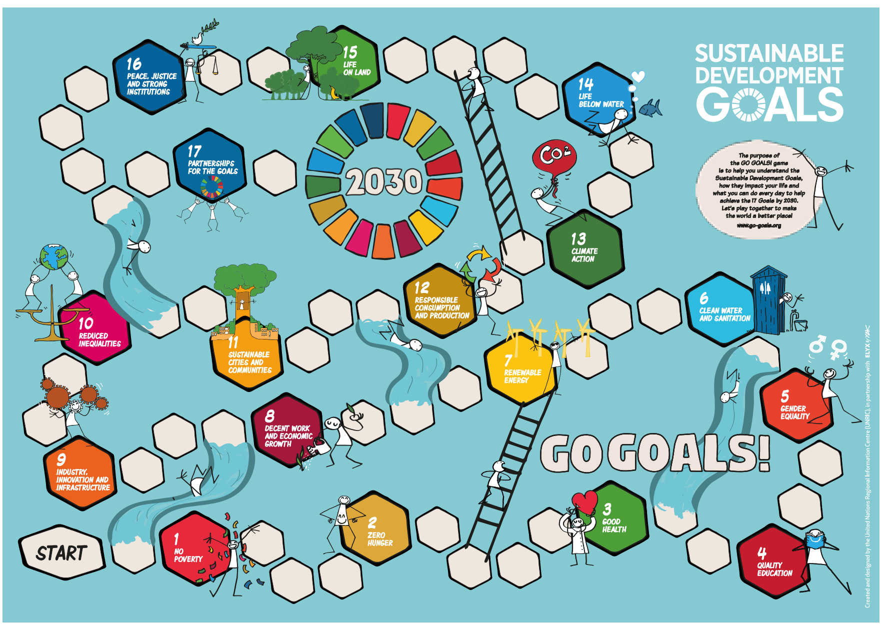
The SDGs, by their set-up and framing, provide a unique opportunity for companies to engage more proactively with stakeholders. The major challenge is how to make the SDGs more 'material' than existing stakeholder approaches. We discussed some general expectations and considered some specific examples of the way frontrunner companies are using the SDGs to move away from incremental to more radical (systemic) innovation. The reversing the materiality approach implies that companies move from an inside-out orientation in issue prioritisation and strategy building to a more outside-in approach in which societal needs are considered material. Issues can only be selected as low or high priority for the short-term or longer-term after close consideration of the interrelation of these needs with the company's present and future possibilities to create societal value.

Thus reversing materiality is a necessary condition for using the SDGs as a strong mechanism for guiding strategic planning. Companies not only have to address their own issue priorities – largely as part of a risk management strategy – but also need to look at future possibilities as part of an opportunity-seeking strategy. Implementing reversed materiality in companies can therefore best be based on seven guiding principles:

- **1. Depart from societal needs and ambitions as defined by the SDGs**: understand how they are related and might affect your business directly or indirectly, now and in the future; realise that the legitimacy of the company depends on the value that you create for society, now and in the future;
- **2. Make a gap analysis***:* consider why some of these SDGs were or were not addressed in the existing materiality matrices of the company. Is this an indication of a selection bias in topics and stakeholders? What does this tell you about the leadership as a company and the level of trust (license to operate) that the company can expect from various groups of stakeholders?
- **3. Assess your present materiality**: use the four levels of intervention: [1] failure; [2] negative externalities; [3] positive externalities; [4] collective action. Then define the level of materiality that you have been able to establish in your internal and external prioritisation of issues; check whether you might conclude that you already 'missed' out on some 'easy' opportunities on this topic;
- **4. Define present and potential spill-over effects**: consider the extent to which each of the SDGs that you are now prioritising, are connected to other SDGs and the extent to which you are affected indirectly (negatively or positively) by initiatives in these SDGs; decide your level of engagement in some of these other areas;
- **5. Assess your stakeholder portfolio***:* Which representatives for which issues are missing? Which partnerships can be constructed for effectively addressing the issue? Are they coalitions of the willing (probably the present stakeholder constellation that helps in constructing the present materiality matrix) versus coalitions of the needed (possibly more critical stakeholders in actual priorities and future stakeholders in those areas that are not yet a priority, but that are closely linked to core SDGs)?

- **6. Define a future agenda***:* Define those SDGs that you might want to engage in for the future (seizing opportunities and striking potential alliances);
- **7. Connected leadership challenge***:* make the various tipping points explicit (internally and externally) that are necessary to make the transition from a reactive to a proactive approach material (cf. Van Tulder et al, 2014). Effective leadership is defined by mobilising support to efficiently overcome these tipping points. Define those departments in your organisation that are willing and able to support an integrated and strategic approach.

We are only at the start of how to best operationalise and implement the SDGs. These seven key steps will evolve and become more concrete over the years, as they will be tested through scientific and practical research in a variety of circumstances. Applying the lessons of Part II of this book to these implementation processes thereby implies that the process is often more important than a detailed 'plan'. SDGs pose 'wicked' challenges, which implies that the experiences of most companies in addressing these goals are not likely to lead to the kind of undisputed and 'evidence-based' proof of 'best practice' solutions that is demanded by the skeptics (Part I). What companies could aim at is something else, however: (1) documenting and comparing all the relevant experiments and initiatives that are now underway; (2) checking on the intentions of the initiatives and the way they are operationalised (level 1-2 or level 3-4 interventions); (3) actively learning from experiences and communicating with stakeholders and wider audiences on dilemmas; (4) using societal triangulation to assess the richness of the approaches; (5) always focus on the impact of ultimate goals as portrayed by the SDGs, including the case in which these ultimate goals are not reached; (6) change the strategy – but always do this together with partners.



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Business & The Sustainable Development Goals: A Framework for Effective Corporate Involvement

The UN's Sustainable Development Goals (SDGs) have been widely accepted by business, government and civil society organisations since their introduction in 2015. They address universal challenges in an increasingly volatile and complex world by presenting a disruptive new model of progress. These inclusive goals are based on positive change and on joint investment of energy and finance, as opposed to subsidies or philanthropy.

Complex, interconnected problems like those presented by the SDGs are called 'wicked problems'. These are global, systemic challenges that are ambiguous and 'unknowable', and even resist definition: each problem appears to be a symptom of other problems, and cannot be properly understood without a proposed solution in mind. So, who takes responsibility for what? For wicked problems there are only solution-oriented approaches with unknown, 'clumsy' outcomes. Collaboration is needed from all spheres in society to turn wicked problems into wicked opportunities, using a balanced approach for having and taking responsibilities. Corporations are uniquely positioned to drive the movement towards the 17 SDGs: they have the ability to innovate, to scale, to invest, and to employ.

This short book presents a framework for designing corporate strategies that are effective for sustainable development. It contains a condensed result of interdisciplinary research and teaching projects. Collaborations with academia, business practitioners, civil society organisations, governments and students over several years allowed the author to develop an integrated vision on the way corporations can contribute to very complex societal problems.

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